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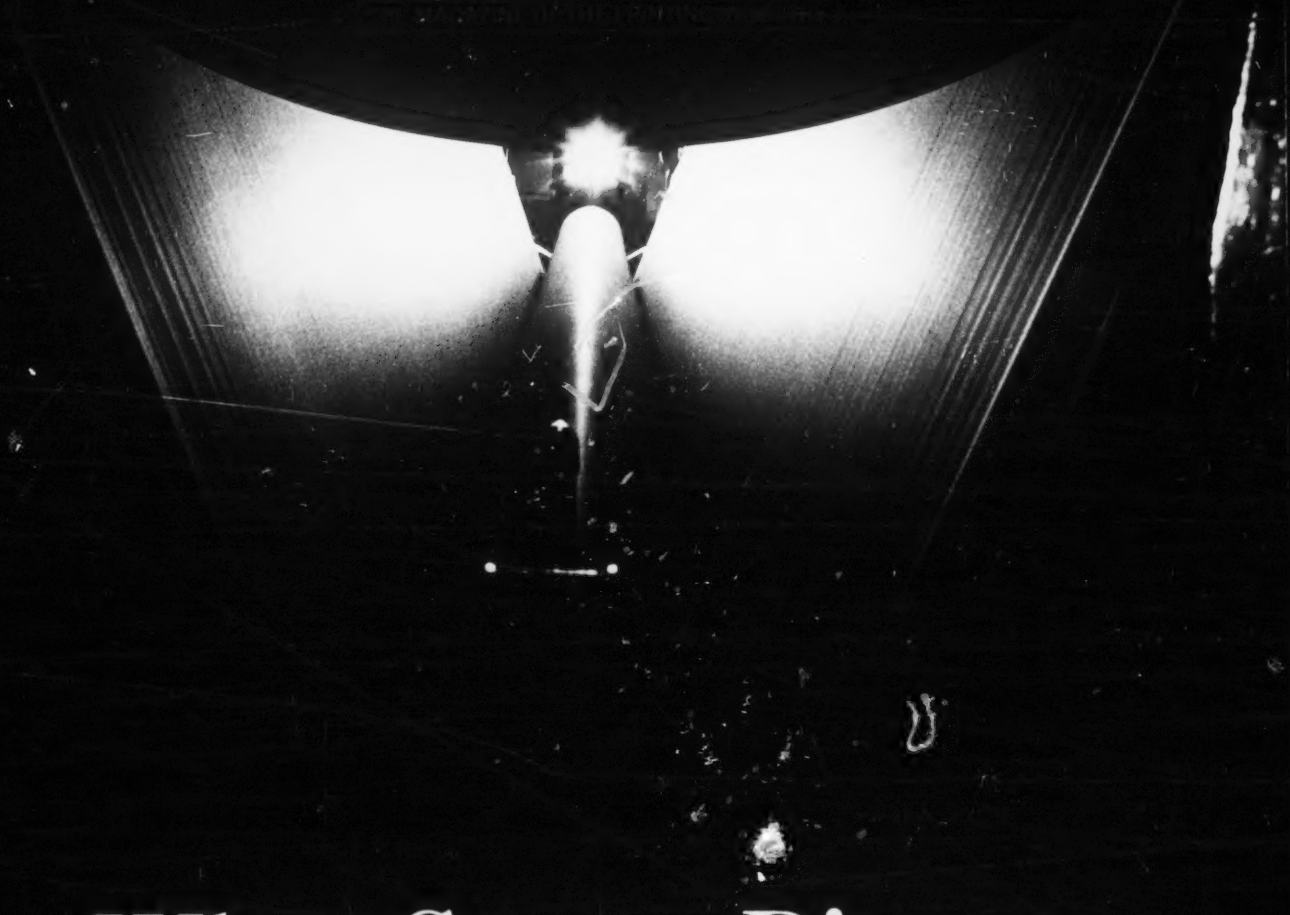

When Curves Diverge

Paper Supply Peaks, But Demand Falters

Action in Labels, Report on New England

VOLUME 63, NUMBER 1

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graphic arts monthly

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Editor Roger Ynostroza

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Assistant Editor Bridget Kinsella

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
William Bureau, Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager
Richard Negri (212) 463-6827

Business Manager
Jerry Arotsky (212) 463-6603
Facsimile: (212) 463-6653

Contracts Coordinator
Jeffrey Rothstein (212) 463-6608

Production Manager
Daniel Coakley (212) 463-6545
Facsimile: (212) 463-6560

Promotion Manager
Dorian Torregrossa

Research Manager Angela Venturino

Assistant to the Publisher
Holly Hoffman

Sales Administrator Elisa Balsamo

Reprints Carol Bien (708) 390-2235

Circulation Manager
Carla Keller (303) 398-7623

Subscriptions/Customer Service
(800) 637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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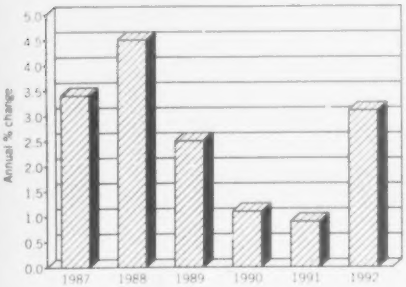
How 1991 Is Shaping Up



The economy is in the midst of a slowdown that is expected to last through the middle of the year. The overall economy is projected to grow 0.9% this year, just below the estimated 1.1% growth rate for 1990. After reaching a low point of growth in 1991, the economy should show substantial improvement next year. This expected upturn is based on the assumption that the Iraqi crisis comes to a peaceful resolution and oil prices decline.

In many ways, economic trends in 1991 will be similar to those of this past year. Industrial markets will outperform consumer markets, exports will grow faster than the overall economy, and housing investment will be weak. Increases in exports, coupled with business investment in equipment, have helped to keep the normally volatile industrial sector at reasonably strong levels. In 1991, these trends will continue, as exports rise 3.2% and equipment investment gains 2.5%.

The consumer sector, on the other hand, will remain weak as consumers try to work off excessive debt levels and avoid additional debt accumulation. Slower income growth and weakening economic conditions caused consumers to trim their spending plans. This situation was exacerbated by the Middle East crisis, which sent consumer confidence plunging. Confidence and spending levels will not resume until consumers see some clear signs of an upturn. Expect consumer spending to grow 0.6% this year, slower than the 1.2% gain expected in 1990.

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The Bureau of Labor Statistics recently revised and converted the industry employment and wage data to correspond with the new Standard Industrial Classification (SIC) codes. Specifically, 15% of gravure printing employees and 25% of engraving and plate printing employees are now considered part of platemaking trade services. Prior to these revisions, commercial printing employment stood at 554,000 in 1988. Employment growth registered 5% in 1988 and 3.5% in 1989. Now, 1988 employment stands at 541,000, and growth rates are slower at 3.5% and 0.9%, respectively.

PRINTING INDUSTRY SUPPLY INDICATORS

				Annual % Change			
	Sep 89	**Aug 90**	**Sep 90**	**1989**	**1990**	**1991**	**1992**
Employment							
Printing & publishing (1)	1558.9	1577.7	1572.9	1.0	1.1	1.6	3.0
Commercial printing (1)	545.5	550.4	548.8	0.9	1.4	1.1	2.9
Productivity							
Printing & publishing (2)	115.8	117.7	116.4	5.0	1.8	2.5	0.3
Average Hourly Earnings							
Printing & publishing (3)	11.07	11.30	11.41	3.4	3.4	3.4	3.8
Commercial printing (3)	11.36	11.630	11.73	3.3	3.5	3.5	4.0
Paper shipments							
Coated paper (4)	610	678	630	-2.6	3.7	5.0	2.4
Uncoated groundwood (4)	152	147	137	10.0	-1.7	1.2	3.1
Uncoated free sheet (4)	885	1012	928	-2.6	3.4	2.5	4.1
	Q2/89	**Q1/90**	**Q2/90**	**1989**	**1990**	**1991**	**1992**
Graphic Arts Machinery							
New orders (5)	140.9	151.8	139.3	4.0	1.9	7.7	4.2
Shipments (5)	177.1	146.4	145.7	1.5	-5.5	4.1	6.1
Graphic Arts Supplies							
Shipments (5)	153.5	150.9	157.3	4.5	3.7	4.9	4.1

(1) Thousands of employees. U.S. Department of Labor. (2) Index: 1977=100. Cahners Economics (3) Dollars per hour. U.S. Department of Labor. (4) Thousands of short tons. American Paper Institute. (5) Index: 1981=100. National Printing Equipment and Supply Association. All forecasts by Cahners Economics.

PRINT MARKET REPORT

Labels Show Healthy Growth

Looking for a fast-action, high-energy marketplace? Well, labels is it, believe it or not.

By Bill Esler
Midwest Editor

If you're opening a printing business today, here's one word of advice: labels. With the most popular label types having seen seven years of growth of 12% or more, the label business is better than ever.

About 2,000 printers do a significant portion of their volume in labels; a typical one runs a narrow flexo press and prints pressure-sensitive material, either for the bar code/product identification market, or for the "primary" label market for food and cosmetics. Fewer than 50 label printers, found mostly in the packaging business or integrated in-house wrapper manufacturers, employ gravure.

Label printing is a fast-action, high-energy marketplace characterized by dramatic advances in printing and application technology, birth of the bar code, and demands for six-color, varnished, metallized, and embossed labels adding extra value to the products they decorate.

Electronic prepress systems allow major efficiencies, too, distorting label images to match the curvature of packages and small printing cylinders, and adapting existing label designs for other packages.

Labels and wrappers are often mentioned in the same breath, but they are really quite different. Wrappers, the tubular packages into which such items as candy bars are slipped, comprise a steady business; it is most often integrated into the food manufacturing enterprise it serves, or is produced by specialized packaging companies such as American Can or James River Graphics. Labels, rather than wrappers, are the part of the packaging business most accessible to commercial printers.

Packaging in consumer goods is decorated either directly via offset or screen printing, or through labels and sleeves. Labels may be applied by wet glue, pressure-sensitive gums, or heat transfer.

Label and wrapper printing is a subset of commercial printing. The dry-gummed and self-adhesive papers supplied to label printers and converters amount to $1.38 billion; the estimated value of labels printed is $3.291 billion, 4.7% of the U.S. print volume, according to *PrintMarkets.*

A study by the Gravure Association of America found an added 47 plants configured with eight units of press, most with 36" widths. The output from these plants is run on 114 presses operating 677 units.

Printing 2000, the benchmark study done by SRI International for Printing Industries of America last fall, showed labels and wraps at a volume of $2.6 billion, projected to grow up to 2% each year this decade, but most agree this is probably too conservative an outlook.

Labels, printed on paper or film substrates by flexo, screen, letterpress, offset, or gravure, are most often printed in rolls for automated application. Pressure-sensitive labels are printed on glue-back films and papers faced with liners, silicone coated for easy release. Rotary flexo, letterpress, and offset are commonly employed. Rotary screen printing has made a recent and very successful entry; webs range from 7" to 20" wide.

Dry-gummed labels are more

Snap-on
70
Snap-on
World's Finest Tools Since 192
Louis Rich
Hickory Smoked
Breast of Turkey
Maxwell House
Brewed Coffee
Concentrate
Naturally Decaffeinated
12 FL OZ
MAGIC - 1870
FREE
PENCIL
CASE
WITH 4 PROOFS
OF PURCHASE
DICK
TRACY

Peter Neumann

likely printed sheetfed, and in this category appear varnished, metallized, and embossed labels. These are the high-grade type that reflect fine wine vintages and top quality perfumes they decorate.

Labels are applied by food processors or filling operations that package bulk commodities, such as motor oil, into liter bottles with a label. Pressure sensitives are blown in place, and tamped fast. Blow-on technology allows combination business form/labels, where the blown-on label may be used as a reply vehicle for a signed copy of the form.

The fastest-growing labels involve pressure-sensitive films and bar codes, the latter for scanning products and supplies into just-in-time inventories. This group, often preprinted with multicolor logos, has seen growth of 50% or more in recent years. Thermally-imaged label materials are particularly popular, as are laser and ion-deposition labels for producing short runs of variable information.

Typical Products

Package Labels
Pressure Sensitive Labels
Self Adhesive Labels
Flat Labels
Roll Labels
Bar Coded Labels
Flat Wrappers
Heat Sealed Wrappers
Glued Wrappers

Typical Users

Beverage Manufacturers
Cigarette Manufacturers
Package Goods Manufacturers
Pharmaceutical/Drug Manufacturers
Soap/Toilet Goods Manufacturers
Dairy Products Manufacturers
Bakery Items Manufacturers
Confectionery Manufacturers

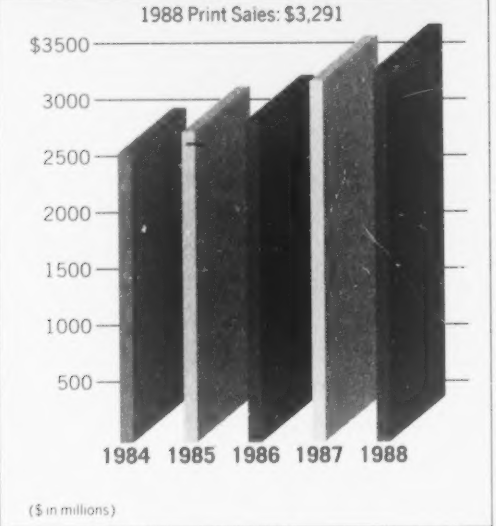
Some printers also market application equipment—such as Chicagoland's Weber Marking Systems, or Dow Systems—for imaging variable information and bar codes on labels (selling the razor, then the blades in the form of labels).

Pressure-sensitive labels, when printed on film, then applied to clear containers, give the appearance of direct screen printing on the package. These have gained a lot of interest, as have composite labels with instant-redemption coupons attached.

Gummed labels recently began a comeback, good news for Fleming Packaging of Peoria, Ill. "For a while we saw a decline in use of our products," says Dick Swain, senior vice president–operations, and a member of the Label Printers of America. "We've seen a movement back to a strong demand for high-performance labels. Our market has expanded dramatically."

Swain says high value-added labels in six to eight colors are demanded with short turn-

Labels & Wrappers



Major Printers—Labels & Wrappers

Rank	Company	Sales in millions
1	Avery International Corp.	110.0
2	Dennison Manufacturing Co.	100.0
3	International Paper Co.	85.0
4	Engraph Inc.	75.0
5	Pitney Bowes Inc.	65.0
6	Fleming Packaging Corp.	63.0
7	Multi-Color Corp.	62.0
8	Nashua Corp.	60.0
9	MPI Label Systems	50.0
10	Data Documents, Inc.	45.0

Source: PrintMarkets

Chart by Annabelle Carter

around, for just-in-time delivery. "And the number of items that we print, the number of items of a particular subject, is based on hundreds of variations on a particular theme," he adds.

Fleming is finishing a plant in Napa, Calif., for high-grade wine labels. With $100 million in sales, Fleming operates seven printing plants.

Screen Print Dow, largest of four sister companies started by Walter Dow that now bill $25 million in sales and employ 165, prints labels on sheetfed screen and offset presses, and sells applying equipment. One Dow unit produces roll labels using flexo, screen, and letterpress, and another produces membrane pads and underlying electronics for touch pad controls.

Adds Bill Donovan, Dow sales vice president, "Advances in ink technology are allowing a wider range of films to be printed rotary screen."

For some printers, development of a label can consume many months, and he must work with the client from the start. "The length of time for a sale is quite long, years in many cases," notes Gerald Gartner, president of Gar-Doc, Milford, N.H., and member of the Tag and Label Manufacturer's Institute. With so much attention to recycling containers, it's not surprising that recycling is a major issue with labels.

Gar-Doc produces pressure-sensitive primary labels for plastic containers, applied as packages are filled, or blown on as the plastic bottles are delivered from a blow molder. It operates seven press lines around the clock, employing 106. Sales are $16 million.

Pressure-sensitive labels have gained popularity, Gartner says, not because they are less expensive than screen printing, but because they are often a more economical way to decorate a container.

Pressure-sensitives are applied from a web of diecut labels, mounted on a siliconized backer paper, from which the unused pattern of paper area, called the matrix, has been stripped away. The label rolls are applied by passing the web around a sharp edge, causing the label to "dispense" while the continuous liner is pulled away from it. This is why rotary presses are most often used. "The advantage of pressure-sensitive labels is in their automatic application," says Gartner. "And that can only be achieved in the web format."

McCourt Label in Philadelphia finds its markets in thermally-imaged labels for printing bar codes. "Over 70% of our business is sold through the business forms distributor," says John Egbert, president. "Because the business forms market has been flat, the distributors have been casting around for new things to sell." He says recycling is an issue for label printers, too, noting, "If you buy a truckload of labels, you get half a truckload of liner, and you have to throw it away."

Chicago-based Weber Marking Systems, with $70 million in sales, has just 40 of its 450 U.S. employees actually printing the $16 million in labels it sells. The company also sells the imaging equipment—laser printers, thermal printers—concentrating on the market for tagging products and packages with scannable bar codes, for automatic identification in manufacturing and distribution.

"The growth of these on-site printing systems is certainly being spurred by use of bar codes," says Weber's Randall Stake, marketing communications manager. The move to such printers was spurred by auto makers' decisions, among others, to require bar-coding on parts delivered to inventory.

Spear Inc., Cincinnati, finds its main focus in screen printed labels, sometimes in conjunction with letterpress. "Film pressure-sensitive labels are the fastest growing decorating method in personal care products today," says Wayne Levoncher, marketing director.

Labels today are more colorful than ever and have a bright future. Presses are able to get a great-looking image onto any type of package, regardless of size or shape.

It's thus safe to say that, as long as there are products to sell, there'll be labels—and label manufacturers—to make them more attractive and easily-identifiable to the consumer.

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Sales Rise, Profits Slump

In the past year, commercial printers in New England have had their hands full. They've battled a general economic slowdown there, a prolonged slump in the computer and high-tech industries, a shattered real estate market, and a shake-out among advertising agencies. Still, many have managed to keep their sales levels up; indeed, about one in four posted double-digit sales gains, a recent survey showed.

But profit margins were something else; badly punished by the effects of fierce competition, desperation pricing, a shrinking customer base, excessive capacity, and sharp probes by outside poachers, profits sank across the board.

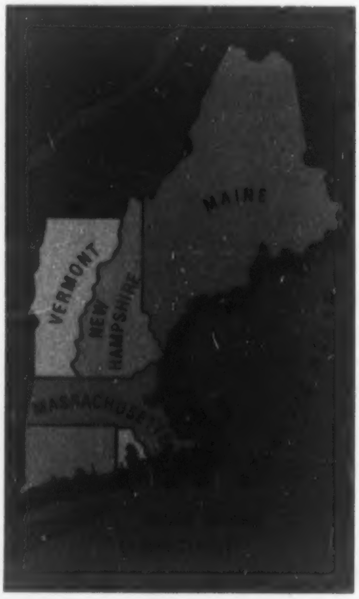
Most telling in the survey of randomly-selected small and medium-sized commercial printers were the individual comments of participants. When asked to size up the printing business in their immediate area, respondents were quite vocal, and in some cases, understandably emotional.

Some said it was their worst year in business, several flatly called Connecticut a depressed economy, and one cautioned printers about the domino effect of failed ad agencies; a few in the region foresaw the death of the printing industry itself.

By Peter Johnston
Special Projects Manager

Yet others were upbeat. One wrote, "We take market share away from others to fuel our 10-year growth average of 25%," another said there was plenty of work for printers who can turn work out fast with quality, and a third called 1990 an all-around better year than 1989.

The outlook in New England is not very rosy, the study showed. Asked to give their perception of the printing business—a confidence index, if you will—seven in 10 thought business was down and just one in 10 called business activity up; the remainder stated business was flat.



Jean Wisenbaugh

To what do they attribute such drastic changes? Losing work to Midwest printers and those in other geographic areas who are lower priced. Plants that overspent on equipment when times were good now having difficulty meeting expenses. The credit crunch. Too much machinery and too few jobs. And fewer customers, more competitors, and lower margins.

Diversified as it is, the *overall* printing industry in New England appears to be stable. But its larger segments—business forms, books, commercial/specialty work, advertising matter—are susceptible to customer slumps, economic malaise, or hesitancy among consumers.

Inside this detachable fold-out form we present a general profile of the graphic arts industry in the six-state region, a close look at commercial printing, demographic data, and listings of leading printers in major markets. Data sources are given on the charts and tables.

The most revealing portion presents survey results among commercial printers. It shows sales changes from 1989 to 1990, the extent of those changes, profitability and capacity comparisons, and a business perception index.

Reprints of this installation of Print Market Trends may be ordered directly from Carol Bien, Cahners Publishing, Reprint Department, 1350 E. Touhy Ave., Des Plaines, IL 60018.

Regional Overview

In all its many forms, the printing industry is an important one in the New England region, offering an array of employment opportunities, revenue sources, and taxes. As the accompanying charts indicate, business forms and books are the leading market segments among the major printers, but commercial printing is an important and broad-based segment. The dollar figures given in the chart are unadjusted for inflation.

COMMERCIAL PRINTING

Value of Shipments

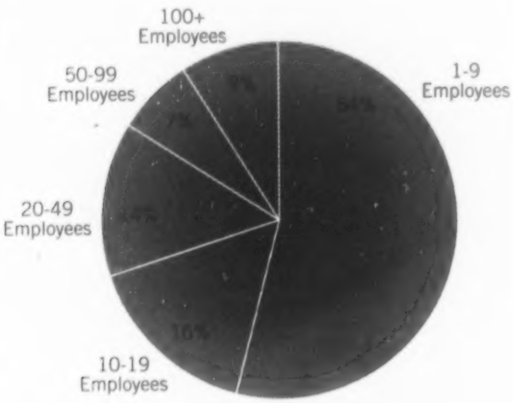
State	Sales, 1990 ($ million)	% of Region	Sales, 1989 ($ million)	% change (1989-1990)
Massachusetts	$2,732	49.6%	$2,556	6.8%
Connecticut	1,404	25.5%	1,320	6.4%
New Hampshire	467	8.5%	431	8.3%
Rhode Island	366	6.7%	343	6.7%
Vermont	343	6.2%	320	7.2%
Maine	191	3.5%	178	7.3%
TOTAL	**$5,503**	**100%**	**$5,148**	**(Average) 6.2%**

Source: PIA Economics Department

Printing Sites

State	Sites
Massachusetts	1,095
Connecticut	666
New Hampshire	159
Rhode Island	179
Vermont	92
Maine	111
TOTAL	**2,302**

All Graphic Arts Plants, by Employee Count



Source: GAM 1990 Plant Equipment Market Profile

Charts and graphs by Lisa Hilgers

All Graphic Arts Plants, by Function

Function	# of Plants
Commercial	1,789
Newspaper (w/Commercial)	77
Newspaper (w/o Commercial)	113
Book & Publication	180
Business Forms	45
Converters	128
Noncommercial	453
Trade	327
Quick Printers	288

Source: GAM 1990 Plant Equipment Market Profile

DEMOGRAPHICS

Population

State	Population	Rank
Massachusetts	5,832,000	12
Connecticut	3,189,000	28
Maine	1,173,000	38
New Hampshire	1,027,000	40
Rhode Island	975,000	42
Vermont	541,000	48
TOTAL	12,737,000	

Population Changes

State	Change (1980-86)	Net Migration
New Hampshire	11.5%	67,000
Maine	3.1%	44,000
Vermont	5.8%	8,000
Rhode Island	2.9%	7,000
Connecticut	2.6%	– 6,000
Massachusetts	1.7%	– 45,000

Educational Attainment

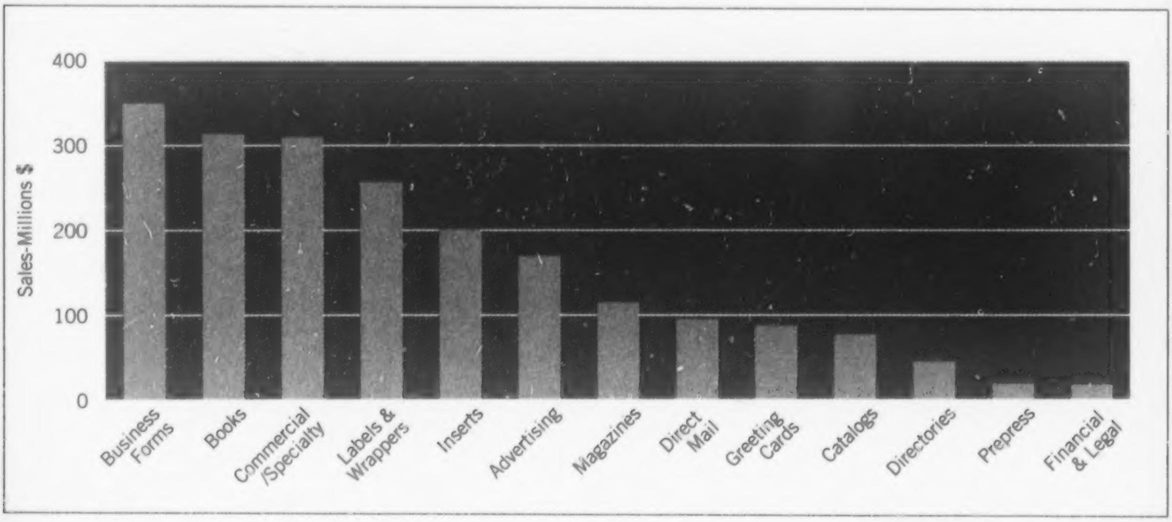
State	High School Graduates	College Graduates
U.S. Average	66.5%	16.2%
New Hampshire	72.3%	18.2%
Massachusetts	72.2%	20.0%
Vermont	71.0%	19.0%
Connecticut	70.3%	20.7%
Maine	68.7%	14.4%
Rhode Island	61.1%	15.4%

Source: U.S. Department of Commerce, Bureau of the Census

Market Profile

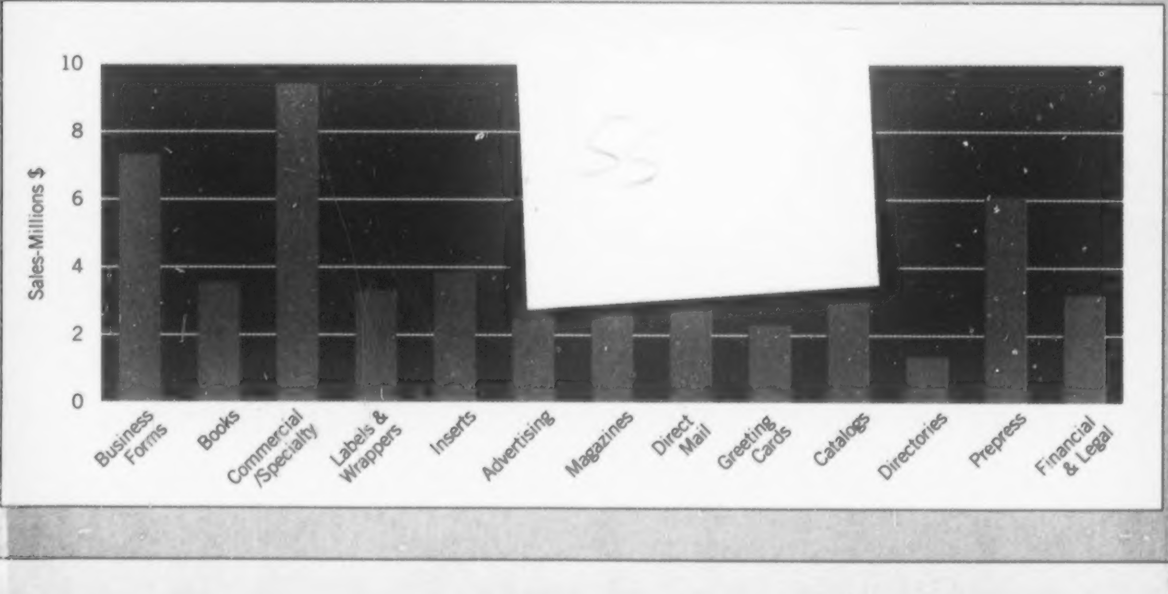
Ranking of Product Segments . . .

The presence of several large business forms printers, together with significant amounts of forms production by other plants printing other matter, results in this product segment leading all others in New England. However, book manufacturing, commercial/specialty, and labels and wrappers segments follow closely in the amount of annual sales generated by larger printers in the region. These bar charts are presented in similar form to simplify comparison between printing intensity in the New England region and in the U.S. All figures here are based on 1989 data.



. . . Compared to National Totals

It's not surprising that, on the national scene, the commercial/specialty segment leads all 13 product categories by size, accounting for some $9.4 billion in annual sales, according to the parameters in this study. Business forms is the second-largest category, advertising printing runs fifth, and freestanding inserts is sixth overall. In these four largest categories, the makeup of the industry in New England matches up nicely with the profile of U.S. printing intensity in terms of segment ranking. Also note how smallest segments match up in this comparison.



Leading Printers in Major Markets

COMPANY	SALES
BUSINESS FORMS PRINTERS	
New England Business Service, Groton, MA	115.0
Uniform Printing & Supply, Acton, MA	55.0
Wheeler Group (Pitney Bowes), New Hartford, CT	26.0
Vermont Computer Forms/Grafton, Grafton, VT	25.0
Dennison Manufacturing, Waltham, MA	25.0
Recording and Statistical Corp., Darien, CT	20.0
Hano Business Forms, Springfield, MA	20.0
Formprint, Portland, ME	19.0
Regal Press, Inc., Norwood, MA	16.5
BOOK PRINTERS	
R.R. Donnelley/Hudson Div., Hudson, MA	65.0
Arcata Graphics/Halliday Div., West Hanover, MA	48.0
Murray Printing (Courier Corp.), Westford, MA	37.0
Semline, Inc. (Quebecor), Braintree, MA	35.0
Rand McNally/Taunton Div., Taunton, MA	30.0
Book Press, Inc. (Quebecor), Brattleboro, VT	25.0
ZBR Publications, Wilmington, MA	15.0
Alpine Press (Courier Corp.), Stoughton, MA	13.0
Federated Lithographers, Providence, RI	12.0
Concord Litho, Concord, NH	6.5
COMMERCIAL/SPECIALTY PRINTERS	
Dennison Manufacturing, Waltham, MA	60.0
New England Book Components, Hingham, MA	27.0
Acme Printing, Wilmington, MA	20.5
Finlay Brothers Company, Bloomfield, CT	19.5
Screenprint/Dow, Wilmington, MA	13.5
The Nimrod Press, Boston, MA	11.0
The Graphic Center, Bloomfield, CT	10.0
Eastern Press, New Haven, CT	9.5
Danbury Printing & Litho, Danbury, CT	9.2
Ames Safety Envelope, Somerville, MA	9.0
LABELS & WRAPPE[illegible]	
Dennison Manufactur[illegible] W[illegible] MA	100.0
Nashua Corporation, N[illegible]ua, NH	60.0
New England Busines[illegible] MA	27.0
Label Art, Inc. (Transkr[illegible]), Wilton, [illegible]	19.0
GarDoc, Inc., Milford, NH	16.0
Anco Packaging, Shelton, CT	10.5
Wheeler Group (Pitney Bowes), New Hartford, CT	9.0
Screenprint/Dow, Wilmington, MA	8.5
Colonial Label (Denney Reyburn), W. Bridgewater, MA	5.0
Herlin Press, Inc., West Haven, CT	1.5
INSERT PRINTERS	
Treasure Chest/Boston, Taunton, MA	40.0
Treasure Chest/Windsor Locks, Windsor Locks, CT	36.0
Maxwell Commun./Providence, Providence, RI	32.0
Barbour & Barbour Associates, [illegible] Windsor, CT	25.0
Eastern Color Printing, Avon, CT	18.0
Perry Printing/Trumbull Div., Trumbull, CT	15.0
Spencer Press, Inc., Wells, ME	13.0
Northeast Graphics, Inc., North Haven, CT	10.0
Reminder Press, Vernon, CT	7.0
Danbury Printing & Litho, Danbury, CT	5.0
ADVERTISING PRINTERS	
Mark Burton Inc., Boston, MA	23.0
Daniels Printing, Everett, MA	21.0
W.E. Andrews (Graphic Ind.), Bedford, MA	14.0
Eusey Press (Quebecor), Leominster, MA	13.0
National Bickford Foremost, Providence, RI	12.5
Winthrop Printing, Boston, MA	11.0
Herlin Press, Inc., West Haven, CT	9.0
Nimrod Press, Boston, MA	9.0
Concord Litho, Concord, NH	7.0
MAGAZINE PRINTERS	
R.R. Donnelley/Old Saybrook, Old Saybrook, CT	40.0
The Lane Press, Inc., S. Burlington, VT	31.5
Connecticut Printers Inc., Bloomfield, CT	13.0
Capital City Press, Berlin, VT	11.5
Hughes Printing (Monroe), Trumbull, CT	9.0
DIRECT MAIL PRINTERS	
Northeast Graphics, Inc., North Haven, CT	14.0
Danbury Printing & Litho, Danbury, CT	12.0
Kurt H. Volk, Inc., Milford, CT	11.0
Modern Printing (Quebecor), Brookfield, CT	10.0
Hub Mail Advertising Services, Boston, MA	10.0

[illegible]

How Printers Are Doing

Based on a survey of firms in the region, conducted by Cahners Publishing

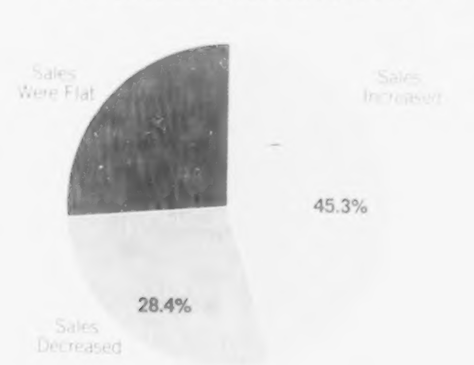
Profile of Respondents

Commercial printers in the New England region responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. The following information is as reported by survey respondents; 1990 gross sales were estimated.

Gross Sales in 1990	
Less than $500,000	7.2%
$500,000-749,999	15.4%
$750,000-999,999	11.3%
$1 million-2,499,999	29.9%
$2,500,000-4,999,999	25.8%
$5,000,000-9,999,999	8.2%
$10 million or more	2.0%

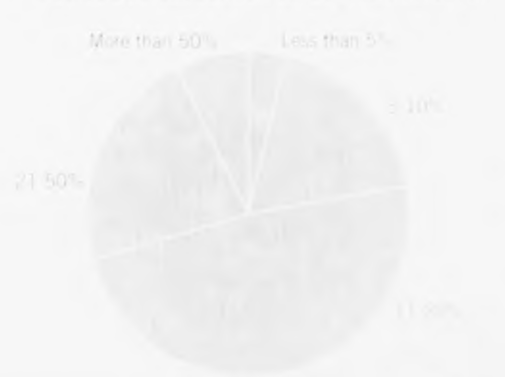
# of Employees	
1-4	1.0%
5-9	12.2%
10-19	26.5%
20-49	33.6%
50-99	19.3%
100+	7.1%

How Sales Changed, 1989 to 1990



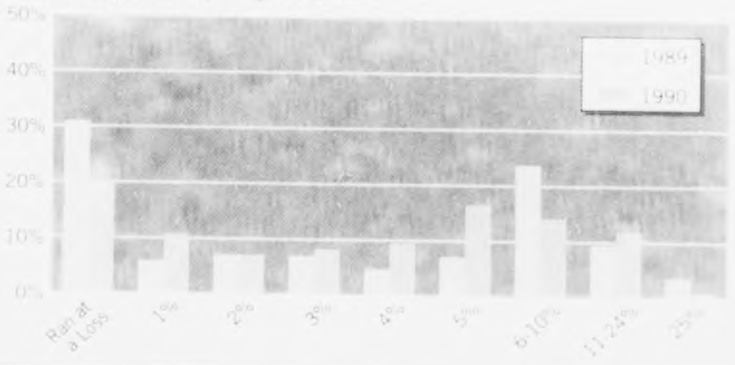
If Sales Increased, How Large Was Increase?

If Sales Decreased, How Large Was Decrease?

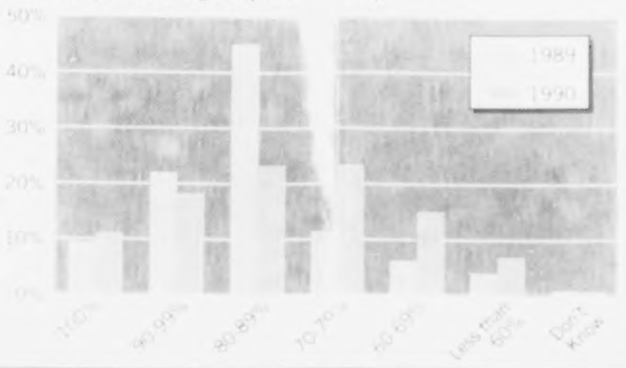


PROFITABILITY & CAPACITY

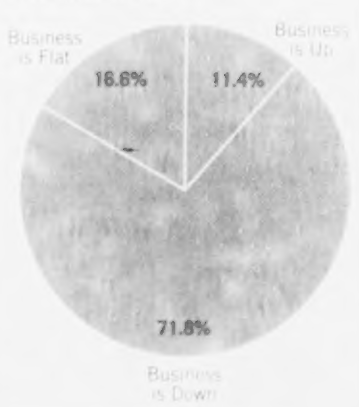
Profit as a percentage of gross sales



Operating percentage of plant [illegible]acity



Perception Index



Comments by Printers

New England respondents describe a variety of business conditions in their area and offer suggestions for their causes:

- Economy here is the worst it's been since 1983. Competition is outrageous.
- Customers are cutting back due to the economy.
- Sales are increasing, but profits are decreasing.
- There is too much capacity.
- People just are not buying because money is so tight.
- Sluggish economy.

graphic arts monthly

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Graphic Arts Monthly, and The
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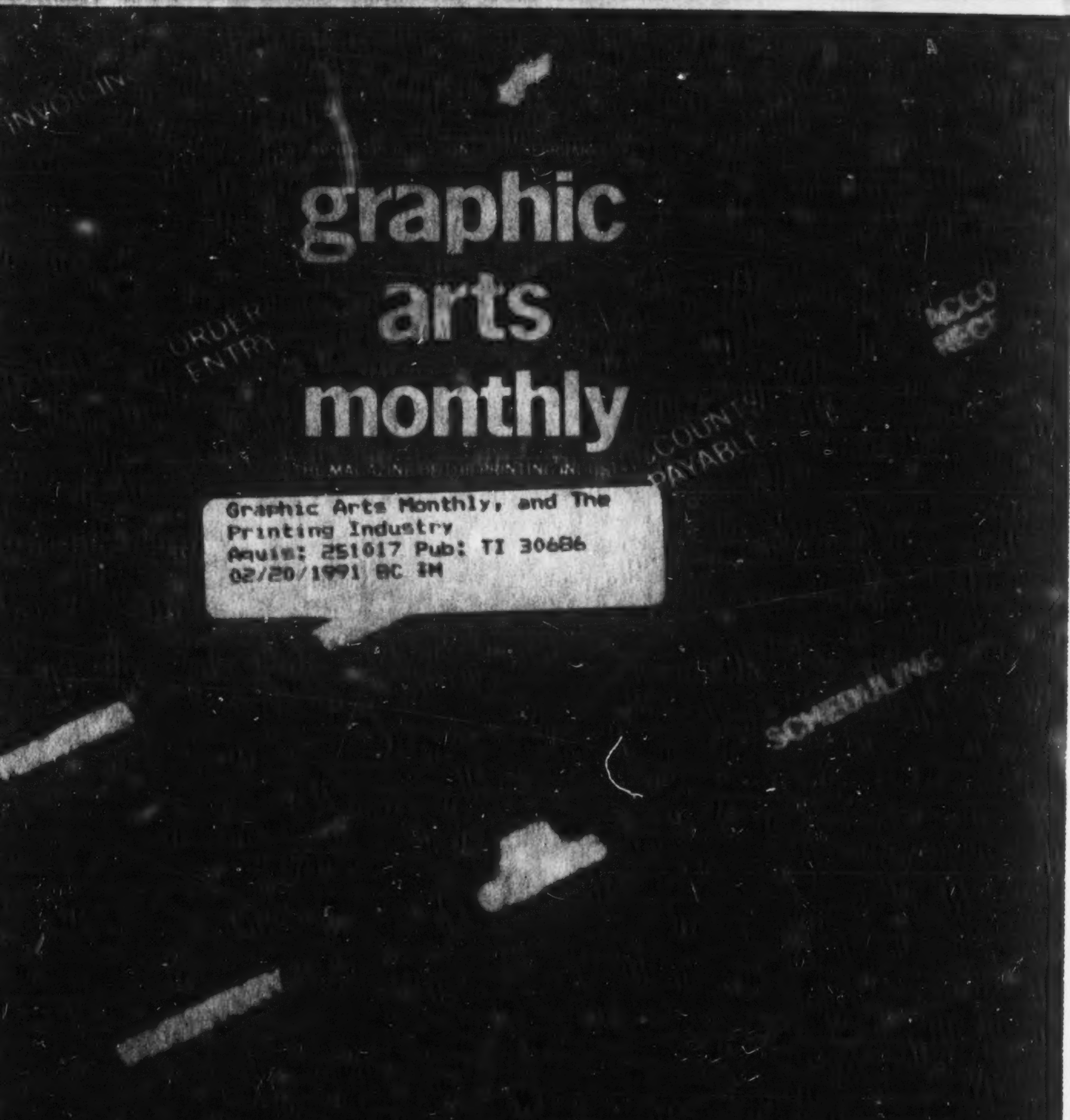
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VOLUME 63, NUMBER 2

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graphic arts monthly

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Vice-President and Publisher
Donald C. Andriani

Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken,
Lisa Cross

Assistant Editor Bridget Kinsella

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 228-6841

Contributing Editors
William Bureau, Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager
Richard Negri (212) 463-6827

Business Manager
Jerry Arotsky (212) 463-[illegible]
Facsimile: (212) 463-6653

Contracts Coordinator
Jeffrey Rothstein (212) 463-[illegible]

Production Manager
Daniel Coakley (212) 463-6545
Facsimile: (212) 463-[illegible]

Promotion Manager
Dorian Torregrossa

Research Manager [illegible]

Assistant to the Publisher
Holly Hoffman

Sales Administrator [illegible]

Reprints Carol Bien (708) [illegible]

Circulation Manager
Carla Keller (303) [illegible]

Subscriptions/Customer Service
(800) [illegible]

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-[illegible]
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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Datatable 13
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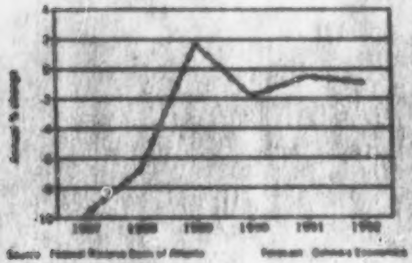
Graphic Arts Monthly (ISSN 1047-[illegible]), including The Printing Industry and Business Graphics, published monthly by The Cahners Publishing Company, A Division of Reed Publishing USA, [illegible]

Cahners Publishing Company, A division of Reed Publishing USA [illegible]

OUTLOOKOUTLOOK**OUTLOOK**OUTLOOKOUTLOOKOUTLOOKOUT

Exports Will Be Major Source of Growth in 1991



Source: Federal Reserve Bank of Atlanta   Forecast: Cahners Economics

The Atlanta Federal Reserve Board's trade-weighted dollar lost 4.1% of its value since the beginning of 1990, but the slide is likely to level off by the beginning of 1991. Assuming a stable political situation, U.S. exchange rates should not fluctuate much over the next few years. The dollar is currently undervalued when measured by purchasing power parity; high U.S. inflation relative to our major trading partners will prevent any substantial revaluation.

The low value of the dollar is the result of a narrower spread between foreign and domestic interest rates as well as the lack of confidence in the U.S. economy. Budget problems and the Savings and Loan crisis add to the uncertainty over future monetary policy. Finally, the volatile political situation in the Middle East could also be a factor in setting the dollar's value on the foreign exchange markets.

Buoyed by a weak currency, manufacturing exports continue to grow faster than imports. In total, U.S. exports have grown at a double-digit rate for the past three years. As a result, exported goods and services now account for 15% of the production in our economy, up from 10% just five years ago. The trade deficit, currently just over $105 billion in nominal dollars, will fall only slightly in 1991 because of a higher oil bill. Net exports, based on national income accounts, will post a smaller deficit because they include services.

Exports still remain one of our best hopes for economic growth in 1991. The economies of most Pacific Rim and European countries are projected to grow significantly faster than the U.S. in 1991. As long as the dollar remains at favorable levels—and a weak U.S. economy coupled with falling interest rates should assure this—we will continue to make inroads with exports.

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According to the Commerce Department's final revision of GNP figures, the economy grew 1.4% at an annualized rate in the third quarter of 1990. While slightly less than the original estimate, most sectors saw growth during this quarter. Consumer spending managed to post a 2.7% annualized gain, while business investment rose 8.9%. Early fourth-quarter figures indicate the economy has deteriorated substantially since early October. Expect the downturn to last just two quarters. Since the slowdown has been with us for so long, however, businesses have made the necessary adjustments and shouldn't have to scale back much more to get through this rough period.

GENERAL ACTIVITY INDICATORS

				Annual Percent Change			
[illegible]	Q1/90	Q2/90	Q3/90	1989	1990	1991	1992
Gross National Product (1)	4129.7	4155.1	4170.0	2.5	1.1	0.9	3.1
Consumer Spending (1)	2675.3	2678.8	2696.8	1.9	1.0	1.3	2.5
Business Investment (1)	513.3	508.4	519.3	3.9	1.8	1.9	4.3
Industrial Production (2)	108.1	109.4	110.4	2.6	1.4	2.5	3.3
Prime Rate (3)	10.7	10.0	10.0	10.9*	10.0*	9.3*	10.3*
Consumer Price Index (4)	124.7	129.3	132.6	4.8	5.4	5.0	3.1
	[illegible]	[illegible]	[illegible]	1989	1990	1991	1992
Industrial Production (2)							
Printing & publishing	109.3	112.2	110.0	4.8	3.1	4.1	3.6
Newspapers	97.3	96.4	98.3	−0.8	0.1	1.3	1.7
Periodicals, books, cards	117.7	120.7	123.8	10.4	5.7	4.7	5.0
Job printing	108.0	[illegible]	[illegible]	4.3	3.4	4.5	5.1
[illegible] (5)							
[illegible]	na	na	na	7.9	3.8	6.4	5.3
[illegible]	na	na	na	4.3	10.5	8.2	9.8

(1) seasonally adjusted annual rate, billions of 1982 dollars. (2) index, 1987 = 100. (3) average percent. (4) index, 1982 = 100.
(5) billions of current dollars
na = data not available for publication. * = annual average
data source: U.S. Department of Commerce, Federal Reserve Board
all forecasts: Cahners Economics

Catch-All, But Catchy

This one (vast) group manages to reflect the diversity of the entire U.S. printing industry.

Commercial / specialty printing. If it sounds like a mouthful, consider this: the category, devised by the folks at Print Markets (published by Trade and Technology Press, Stamford, Conn.) includes everything that doesn't come under any other of the more obvious headings we will review in our 1991 series of Print Market Reports.

According to Trade & Technology Press, printers who are *not* printing the following items—books, greeting cards, magazines, advertising, financial, catalogs, direct mail, inserts, labels (covered in January) or business forms—must be engaged in printing commercial/specialty work.

This catch-all category to a large extent includes types of printing that include unusual bindings, shaping of materials, and specialized applications such as scratch-off game cards. It also includes quick printing when done on a massive scale, such as Curtiss 1000's stationery business, or one of the several units of Graphic Industries Inc. which handle blueprinting and copying services.

The rationale behind this category, and the entire Print Markets approach to printing business analysis, is worth examining. Anup Hooja, the editor of Print Markets, and Ashok Anand, publisher, proposed in 1986 that the Standard Industrial Classifications (SIC codes) used by the United States Department of Commerce do not reflect the real world of print manufacturing. Commerce combines magazines, advertising, direct mail, labels, inserts and catalogs, into a single SIC category that it calls "commercial printing", part of SIC Code 27.

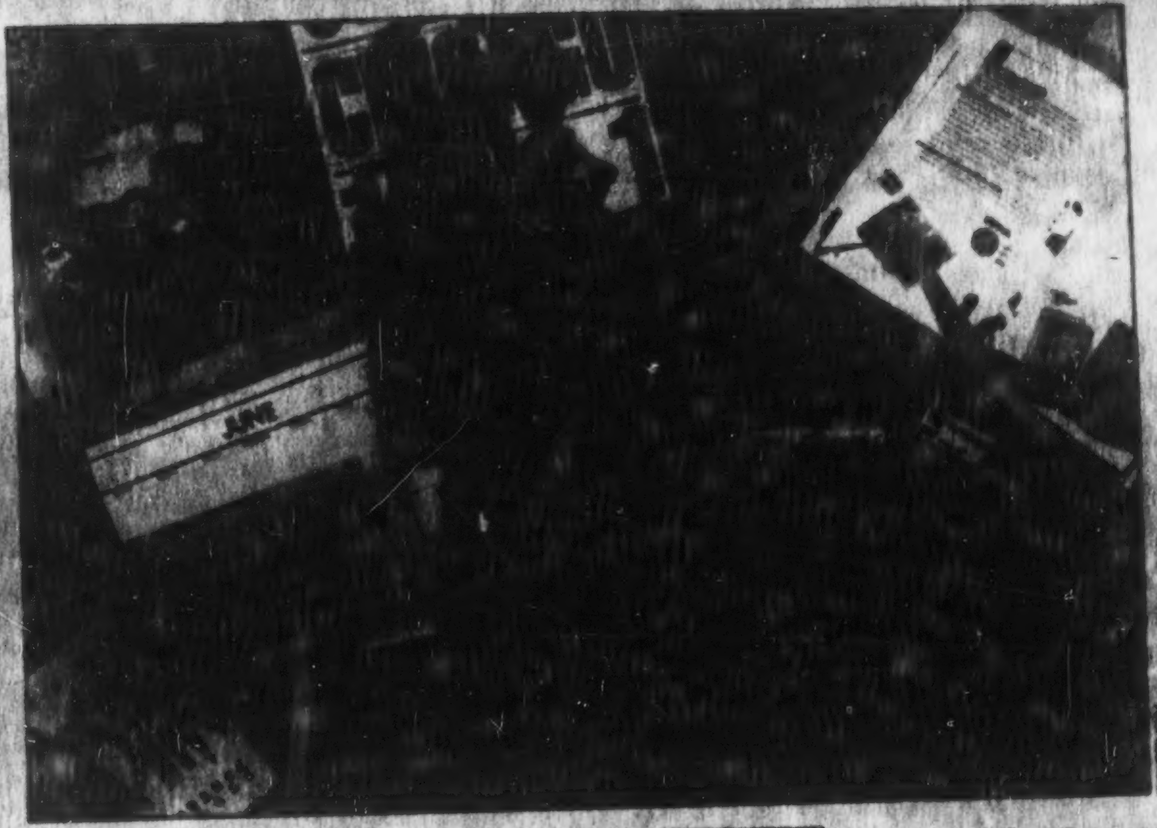
By Bill Esler
Midwest Editor

Labels and wrappers can be found under SIC 26, packaging. The Print Markets approach has been to try to ferret out, via questionnaires and surveys, the volume of printing as it plays out in market segments, using the common, everyday names we in the industry apply to various markets. Print Markets takes data derived from its own research, correlates it to Commerce data, and provides figures that add up to the same totals as the government figures, but which can be broken down into more meaningful groups.

Commercial/Specialty printing, however, is such a large grouping, with such disparate elements, it ends up reflecting very much the diversity of the printing industry as a whole.

"The basic general commercial printer is in there [the category]," says Hooja. "The focus of his business is stationery and cards and all the little stuff. And the pure specialty people are in there. These are people who do screen printing, or out-of-the-ordinary sizes like maps and posters, or who print on plastics, things like that."

But few printers would describe themselves as "commercial/specialty" printers. Instead they see themselves as falling into one of these categories or as printers of these products: point-of-purchase (P-O-P); calendars; maps; yearbooks; business cards/stationery; gift wrap;



printed packaging; annual reports; screen printing; lottery and event tickets; playing cards; baseball cards; printing on plastics; and quick printing.

Some printers are obviously specialty type printers, imprinting pencils, key chains, selling printed novelties along with conventional products such as Amsterdam (N.Y.) Printing and Litho Corp. The 92-year old company reports $28 million in sales of labels or printing "odds and ends," and carries on an aggressive direct-marketing program to reach customers nationwide.

Day Timers is another familiar name, categorized as a commercial specialty printer by Print Markets. The privately-held company does $128 million in sales of its time organizing tools including the wall charts and diaries beloved by salespeople and production managers alike.

Screen Graphics Inc., a Memphis-based unit of Ingraph, handles a mixture of labels and other [illegible] [illegible] such as point-of-purchase displays. The company pursues a "total source" concept for its customers, whether they need labels, labeling systems, point-of-purchase, or screen-printed specialities or exhibits.

Typical Products

Point-of-Purchase Materials
Calendars and Diaries
Maps and Posters
Yearbooks
Business Cards and Stationery
Gift Wrapping
Annual Reports
Lottery and Event Tickets
Playing Cards
Baseball and Sports Cards
Quick Printing

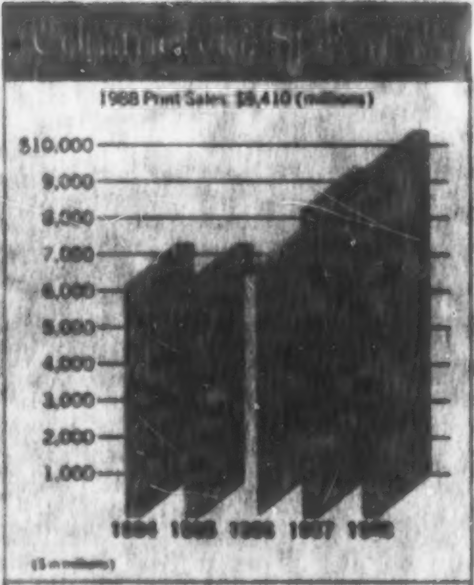
Typical Users

Consumer Goods Manufacturers
Retail and Mail Marketers
Book Publishers
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

Cincinnati's The Hennegan Co. is well known as an award-winning commercial printer, but the company also has a thriving business in point-of-purchase displays. It's niche focuses on producing dimensional stand-up promotions for movie companies—the life-sized Stallones and Jean-Claude Van Damme figures you'll find in theater lobbies. This is a product tradition that dates to the company's beginnings more than a century ago as a poster printer for Vaudeville shows, moving pictures, and the circus.

Using large format diecutting and embossing presses, Hennegan forms and shapes its products, like so many of the printers in the commercial specialty category.

(Continued on p. [illegible])



Major Printers—Commercial/Specialty

Rank	Company	Sales in millions
1	Stone Container Corp.	485.0
2	James River Corp. of Va.	475.0
3	Hallmark Cards Inc.	185.0
4	Jostens Inc.	140.0
5	Jefferson Smurfit Corp.	137.0
6	Rand McNally & Co.	130.0
7	Day Timers Inc.	126.0
8	Webcraft Technologies Inc.	115.0
9	Artistic	107.0
10	[illegible] Inc.	105.0

Source: [illegible]

Chart by [illegible]

Frederic Printing in Aurora, Colo., fits the commercial/specialty category quite completely. "We do general commercial printing, and we also get into annual reports," notes Richard Scott, the company's general manager. "We get into packaging for the cosmetic industry. And then we do a lot of resort community brochures—rack brochures and flyers." Frederic produces corporate communications materials, and manuals, bound with Wire-O (in-house) or three-ring binders (purchased from outside).

"We're completely self-contained, from design, all the way through fulfillment," says Scott. "Everything is done in-house." This includes presentation folders, which are diecut, stamped, embossed, and glued on the premises. "We even do a couple of magazines, and limited art prints, posters, calendars, anywhere from single-sheet to Wire-O bound to stitched." The $13.5 million, family-owned company, founded in 1878, sees about two-thirds of its varied volume falling into the all-encompassing commercial/specialty area.

Much more concentrated in its focus of activity is Horticultural Printers, Mesquite, Texas. The company was founded in 1957 to produce those familiar plastic tags found on house-plants—the ones with a color picture of the plant (always in perfect health!) on one side, and care directions on the other.

"We also do flexo pressure sensitive labels," says Horticultural's Larry King. These are used for bar coding. "Other than that, we are a general commercial printer. We have several webs, and we do schoolbooks, publications, and posters. But our specialty is the horticultural labels."

Perhaps the most specialized of the specialty printers we encountered was Decor Gravure, a $10 million printer based in Fairfield, Ala. Decor specializes in gravure printing of wallpaper products, used in manufacturing RVs and prefabricated housing. Printing anything from two- to five-color, Decor Gravure produces 50½" material that is applied to wallboards and other materials.

"We're a little different than everybody else. We also laminate," says Dale Glasscock, president. "We laminate and distribute it as a finished product." Right now the company is working on interior surfaces for Winnebago's 1992 models. "Our approach is to buy artwork and then adapt it to the scale and repeat for the industry that we serve. We buy about three times a year, in New York, France, and Germany."

Decor Gravure works with its customers in the prefabricated housing marketplace to, "try to develop products in tune with what they believe the market is demanding. And areas of the country differ. What sells in California may not sell in Pennsylvania. So we are very regionalized in some of our concepts."

Printers approach their printing and their markets in one of four strategies, according to the Print Markets report:

- They may be *full line/all market suppliers* serving all market segments with a full range of products. This description would fit Frederic Printing.
- They may *aim a full line of products at a particular market segment*, such as Screen Graphics does for screen printed label users.
- Alternately, printers may *specialize in a specific product*, as with Day Timers, *selling to all markets*.
- Finally, printers may *specialize in a particular type of product for a specific market segment*, such as highly-focused Decor Gravure does.

Of the many types of printing specialists, the commercial/specialty group identified by Print Markets exhibits these four major strategies most clearly. And it is a group that reflects the variety and diversity of the U.S. printing industry. This, in turn, is a product of print's adaptability, which is one of the industry's greatest strengths, and one that will likely continue to drive this segment's success regardless of what's going on in the rest of the economy. ■

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Upbeat Economy Stays Strong

Whatever it is that's happening in the overall U.S. economy, a lot more of it is happening some places than others. We kicked off this series with a look at the New England region, where slumping profits and bare-knuckled competition have printers seeing a decidedly gloomy picture.

According to our survey findings, things look significantly brighter in the populous South Atlantic region, which sprawls from just south of Philadelphia all the way down to Key West, embracing eight states and the District of Columbia.

One reason for this is simply that things are better in the South Atlantic; compared to New England, printers in this region showed larger sales increases (1989-1990), higher profitability, and less idle capacity.

Partly that's because the Northeast has been hit by declines in some of its major industries, particularly computers in New England and financial services in the New York City area. There's also been a painful contraction in the Northeast's real estate market.

However, it's too simple just to say that people have quit buying mainframe computers and million-dollar tract housing while they're still drinking orange juice and flying down to Disney World. If you look carefully at the numbers in this report, you will see that the real secret to the strength of a region like the South Atlantic (and others we'll get to during the year) can be summed up in one word: growth.

By [illegible]
Special Projects Manager

With the exception of metropolitan Washington and the state of West Virginia, all [illegible] areas are growing in population. And people aren't just moving there because it's warm; they're moving because there are jobs there. Industry—and thus the general economy—is growing right along with the population.

The fortunes of general commercial printing, the classic, quintessential business-service industry, are inextricably bound to the fortunes of its customers. It is these customers who make up the growing economy of the South Atlantic region, and it is their success that accounts for the relatively rosy mood of the region's printers.

But don't get us wrong. Everything is not perfect in the region, any more than everything is awful north of it. We notice, however, that while sales and profitability numbers for the region are somewhat higher, the confidence index is a lot higher. There may be competition, recession, and the threat of war, but a growing economy apparently makes it a lot easier to take them in stride.

The most revealing portion of our data presents survey results among commercial printers. It shows sales changes from 1989 to 1990, the extent of those changes, profitability and capacity comparisons, and a business prospects index.

Reprints of the installation of Print Market Trends may be ordered from Carol [illegible], Cahners Publishing, Reprint Department, 1350 E. Touhy Ave., Des Plaines, IL [illegible]

Regional Overview

The printing industry is an important factor in the economy of the South Atlantic region, offering a variety of employment opportunities and revenue sources, as well as contributing to the local tax base. Among larger printers, commercial printing is the leading market segment, followed by inserts, financial and legal printing, and magazines. Dollar figures given throughout this report are unadjusted for inflation.

COMMERCIAL PRINTING

Value of Shipments

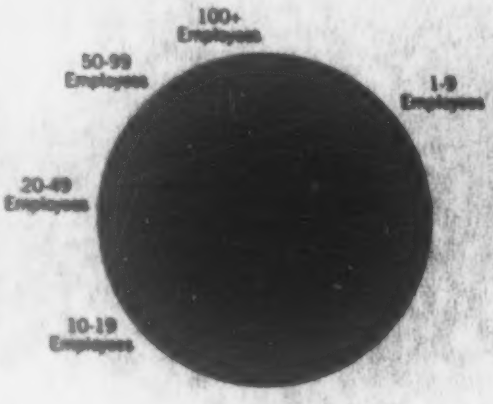
State	Sales, 1990 ($ million)	% of Region	Sales, 1989 ($ million)	% change (1989-1990)
Florida	$2,742	23.4%	$2,556	7.3%
Georgia	2,187	18.7%	2,006	9.0%
Virginia	1,970	16.8%	1,829	7.7%
Maryland	1,873	15.9%	1,743	7.4%
N. Carolina	1,728	14.8%	1,594	8.4%
S. Carolina	628	5.4%	579	8.4%
D. of Columbia	237	2.0%	221	7.2%
W. Virginia	218	1.9%	206	5.8%
Delaware	131	1.1%	121	8.2%
TOTAL	$11,714	100%	$10,854	(Average) 7.9%

Source: PIA Economics Department

Printing Sites

State	Sites
Florida	1,724
Georgia	1,600
North Carolina	765
Virginia	669
Maryland	656
South Carolina	262
West Virginia	103
Delaware	69
TOTAL	[illegible]

All Graphic Arts Plants, by Employee Count



Source: GRM 1990 Plant Equipment Market Profile

Charts and graphs by Lisa Hilgers

All Graphic Arts Plants, by Function

Function	# of Plants
Commercial	3,934
Newspaper (w/Commercial)	205
Newspaper (w/o Commercial)	262
Book & Pub	372
Business Forms	107
Converters	252
Noncommercial	1,233
Trade	556
Quick Printers	835

Source: GRM 1990 Plant Equipment Market Profile

DEMOGRAPHICS

The South Atlantic region is the second most populous in the U.S., after the East North Central. More than a quarter of the people here (just over 28%) live in Florida, one of the five largest states, the others being California, New York, Texas, and Illinois, and also one of the most rapidly growing (along with California and Texas).

Population and Population Changes

State	Population	Rank	Change [illegible]
Florida	11,675,000	5	19.8%
North Carolina	6,333,000	10	7.7%
Georgia	6,104,000	11	11.7%
Virginia	5,787,000	13	8.2%
Maryland	4,463,000	19	5.6%
South Carolina	3,377,000	24	8.2%
West Virginia	1,918,000	34	−1.8%
Delaware	633,000	47	6.5%
DC	626,100	—	−1.5%
TOTAL	40,916,080		

Educational Attainment

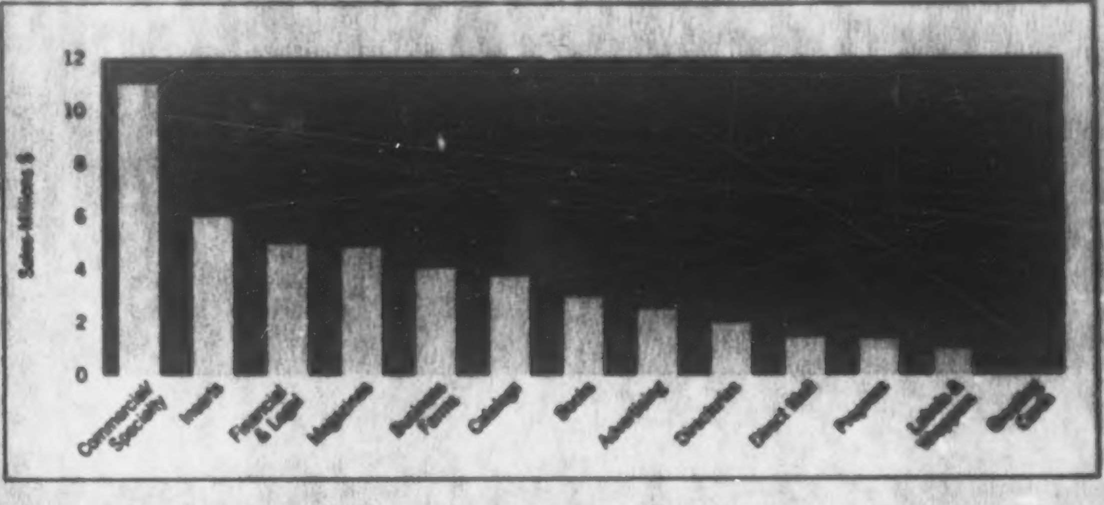
State	High School Graduates	College Graduates
U.S. Average	66.5%	16.2%
Delaware	68.5%	17.5%
Maryland	67.4%	20.4%
DC	67.1%	27.5%
Florida	66.7%	14.9%
Virginia	62.4%	19.1%
Georgia	56.4%	14.6%
West Virginia	56.0%	10.4%
North Carolina	54.8%	13.2%
South Carolina	53.7%	13.4%

Source: U.S. Department of Commerce, Bureau of the Census

Market Profile

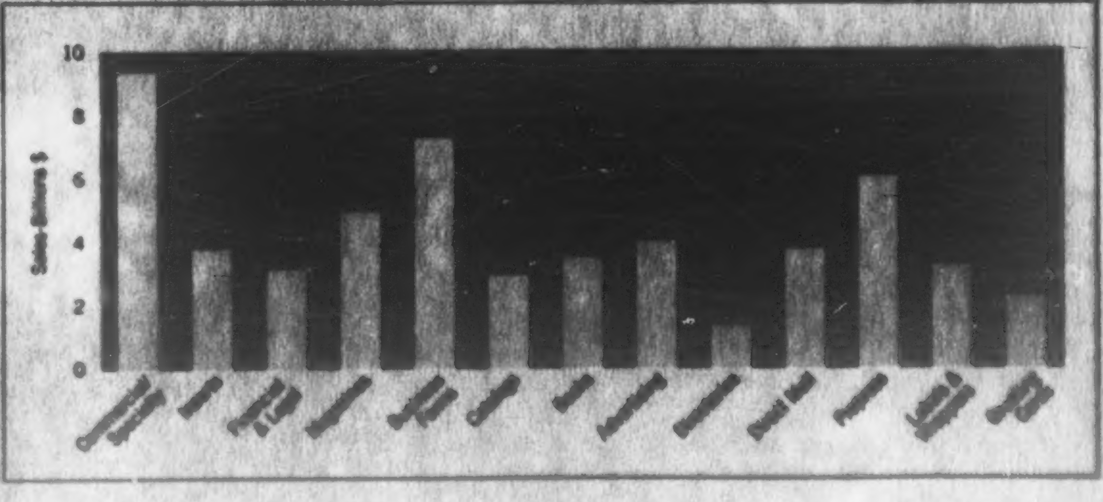
Ranking of Product Segments . . .

The presence of a diverse and broad-based economy with a high representation of consumer products and tourism account for the commercial printing segment leading all others in the South Atlantic. The presence in the region of a small number of very large insert plants make this segment number two, closely followed by financial and legal, magazines, and business forms. These bar charts are presented in similar order to simplify comparison between segment concentration in the South Atlantic and the U.S. All figures here are based on 1989 data.



. . . Compared to National Totals

Just as in the South Atlantic, the commercial printing segment leads all 13 product categories by size, accounting for some $9.4 billion in annual sales (following the parameters of this study). Free-standing inserts are the sixth-largest overall, financial and legal rank tenth, and magazines fourth. In other segments, the structure of the industry in the South Atlantic is at least a rough match for that of the overall U.S. Greeting cards, one of the smallest segments, is insignificant in the South Atlantic, and is thus not represented here.



Leading Printers in Major Markets

COMPANY	SALES*
COMMERCIAL/SPECIALTY PRINTERS	
James River Corp. of Virginia, Richmond, VA	475.0
Curtis 1000 Inc., Atlanta, GA	94.0
Old Dominion Box Company, Madison Heights, VA	46.0
Package Prod. Flexible (Engraph), Charlotte, NC	40.0
Dittler Brothers, Incorporated, Atlanta, GA	40.0
Fuchs Printers, Hyattsville, MD	27.5
Somerville Packaging, Newport News, VA	20.0
John D. Lucas Printing, Baltimore, MD	20.0
Printing House, Inc., Quincy, FL	19.5
INSERT PRINTERS	
R.R. Donnelley/Spartanburg, Spartanburg, SC	[illegible]
[illegible]/Richmond, Richmond, VA	[illegible]
[illegible] Offset, Arlington, VA	[illegible]
[illegible], Durham, NC	[illegible]
[illegible], NC	[illegible]
[illegible]/Glen Burnie, Glen Burnie, MD	[illegible]

COMPANY	SALES
[illegible] American Magazine, Evans, GA	29.0
[illegible], Atlanta, GA	28.5
[illegible]—Lynchburg, Lynchburg, VA	25.0
[illegible] Advertising, Atlanta, GA	25.0
[illegible]	
John H. Harland Company, Decatur, GA	282.0
American Bank Stationery, Baltimore, MD	140.0
[illegible] Security Pts. (Deluxe Check) Baltimore, MD	20.0
[illegible] Printing [illegible], Atlanta, GA	12.0
[illegible] & [illegible], Inc. Peachtree City, GA	7.0
[illegible] Financial Pts. (Deluxe Ck), Miami, FL	6.0
[illegible], Inc., [illegible], VA	6.0
[illegible] International, Atlanta, GA	5.0
William Byrd Press (Deluxe Check), Richmond, VA	5.0

COMPANY
[illegible]
William Byrd Press [illegible] Richmond, VA
[illegible]—Lynchburg
[illegible]
W.R. Bean & Son, Atlanta, GA
Waverly Press, Baltimore, MD
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
Curtis 1000 [illegible]
[illegible]
[illegible]
[illegible]

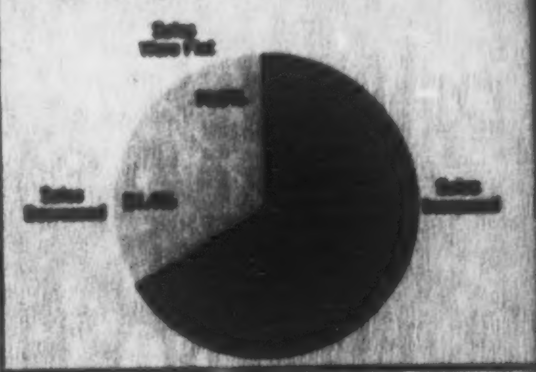
How Printers Are Doing

Profile of Respondents

Commercial printers in the South Atlantic region responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. The following information is as reported by survey respondents; 1990 gross sales were estimated.

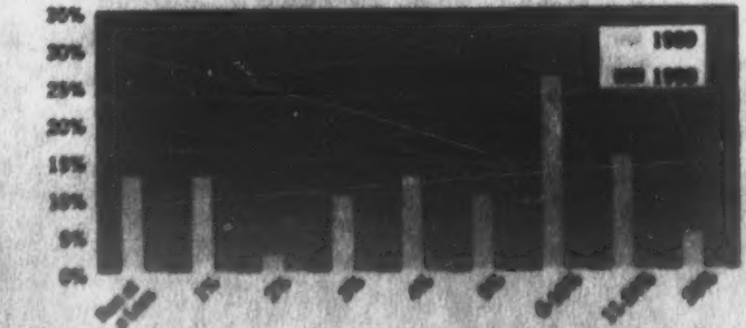
Gross Sales in 1990		# of Employees	
Less than $500,000	6.7%	1-4	6.7%
$500,000-749,999	13.3%	5-9	6.7%
$750,000-999,999	17.8%	10-19	17.8%
$1 million-2,499,999	24.4%	20-49	46.7%
$2,500,000-4,999,999	22.2%	50-99	13.3%
$5,000,000-9,999,999	13.3%	100+	8.9%
$10 million or more	2.2%		

How Sales Changed, 1989 to 1990

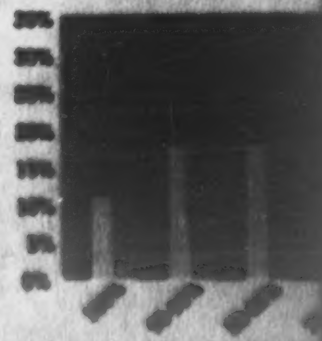


PROFITABILITY & CAPACITY

Profit as a percentage of gross sales



Operating [illegible]



	SALES
m.)	
	59.5
chburg, VA	55.0
, Strasburg, VA	43.0
	39.0
	36.1
llywood, FL	25.0
	24.0
	21.0
chase, VA	20.0
s Church, VA	17.0
Atlanta, GA	79.6
Largo, FL	48.0
C	45.5
C	37.0

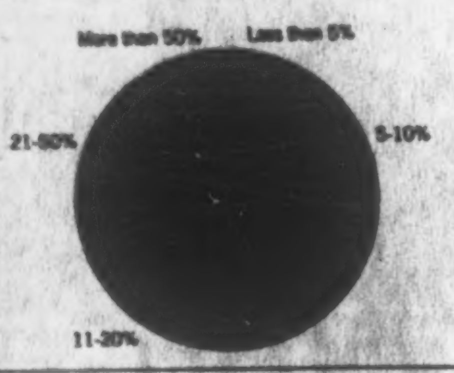
COMPANY	SALES
Sturgis Newport Business Forms, Hampton, VA	33.0
Chapman Printing Company, Huntington, WV	24.0
Woodbury Business Forms, Inc., LaGrange, GA	23.0
Datagraphic Incorporated, Atlanta, GA	21.5
Computer Ptg. (Cullman Ventures), Fredricksburg, VA	18.0
Electronic Data Magnetics, High Point, NC	16.5
CATALOG PRINTERS	
Meredith/Burda—Lynchburg, Lynchburg, WV	70.0
Meredith/Burda—Newton, Newton, NC	64.0
Foote & Davies Inc., Atlanta, GA	60.0
R.R. Donnelley/Spartanburg, SC	60.0
Ringier America/Augusta, Evans, GA	40.0
Avanti Press, Miami, FL	21.0
Judd's Incorporated/Shenandoah, Strasburg, VA	10.0
Hickory Printing Group, Inc., Hickory, NC	6.0
Graphic Productions Company, Miami, FL	6.0

COMPANY	SALES
BOOK PRINTERS	
R.R. Donnelley/Harrisonburg, Harrisonburg, VA	95.0
Banta Company (Banta), Harrisonburg, VA	40.0
Port City Press, Pikesville, MD	32.0
Berryville Graphics (Bertelsmann), Berryville, VA	20.0
Optic Graphics, Glen Burnie, MD	17.0
ADVERTISING PRINTERS	
Williams Printing (Graphic Indus.), Atlanta, GA	20.0
American Graphics (Cadmus Comm.), Atlanta, GA	18.9
Gold Coast Graphics Group, Sunrise, FL	17.0
Goodway Graphics of Virginia, Springfield, VA	16.5
Avanti Press, Miami, FL	15.0

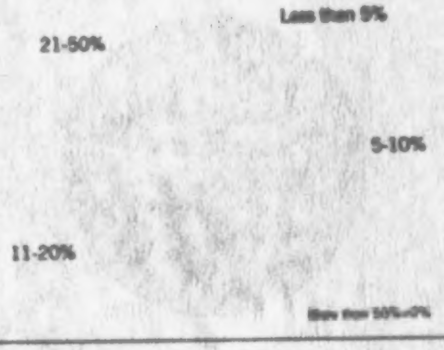
Selective listing, which indicates only the concentration of larger plants in larger segments, is from Printingnews, Trade & Technology Press, Stamford, Conn., based on data provided by firms involved. Sales in millions.

Based on a survey of firms in the region, conducted by Cahners Publishing

If Sales Increased, How Large Was Increase?



If Sales Decreased, How Large Was Decrease?



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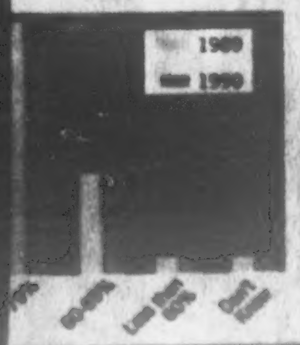

Perception Index

Comments by Printers

South Atlantic respondents describe a variety of business conditions in their area and offer suggestions for their causes:

- Some large businesses closed down due to over-investment. Others are holding their own.
- Most printers investing in new equipment.
- The trend is towards quicker turnaround regardless of the difficulty of the job.
- Things seem to have leveled off due to the change in economy and increasing competition.

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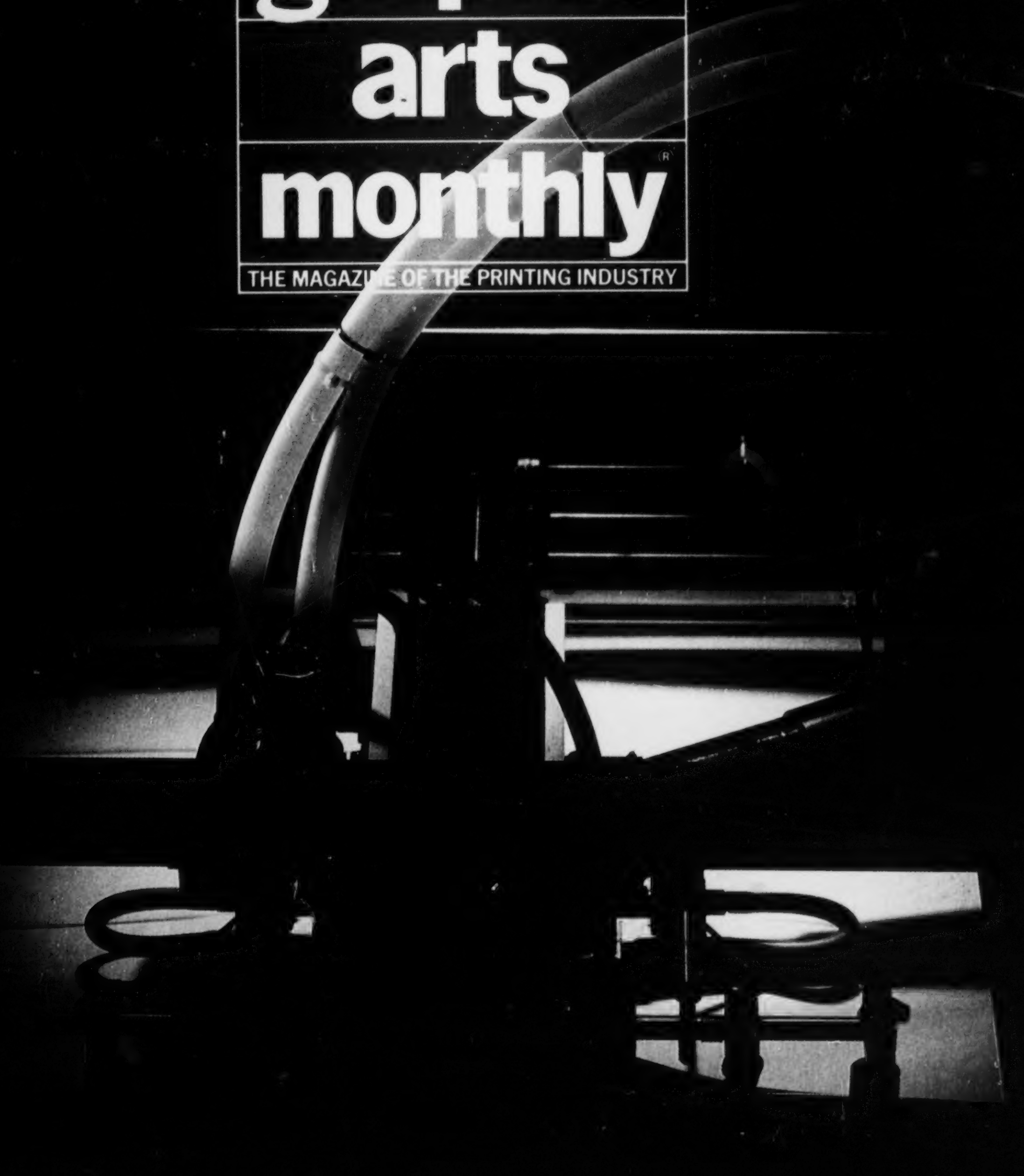

High-Tech Sheetfeds Entice Gutsy Buyers

eetfed Coating *How Printing Prospers in the Midwest*

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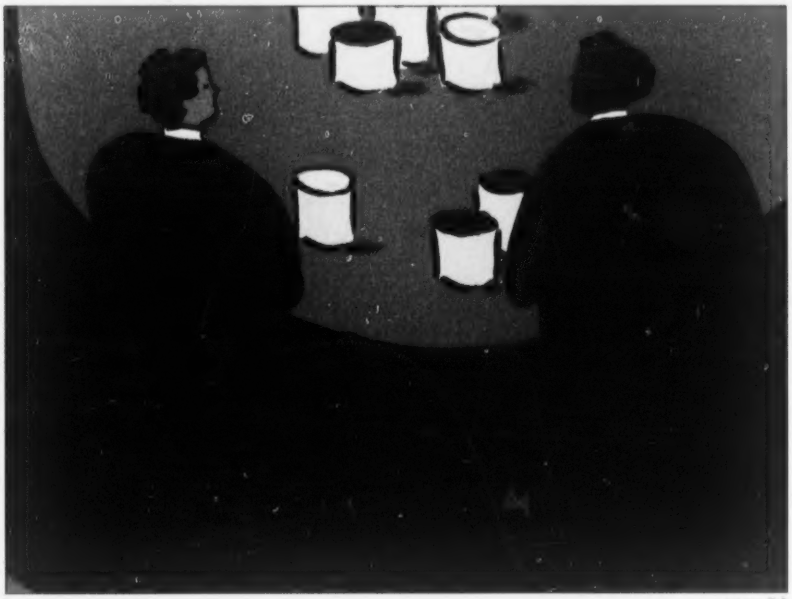

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On The Cover: Photograph by Gary Sigman, shot at Paper Express, a division of Bradley Printing, Des Plaines, Ill..

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Vice-President and Publisher
Ronald C. Andriani

Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken, Lisa Cross

Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
Bill Bureau, Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Jeff Rothstein

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager
Richard Negri (212) 463-6827

Business Manager
Jerry Arotsky (212) 463-6603
Facsimile: (212) 463-6653

Contracts Coordinator
Jeffrey Rothstein (212) 463-6608

Production Manager
Daniel Coakley (212) 463-6545
Facsimile: (212) 463-6560

Promotion Manager
Dorian Torregrossa

Research Manager Angela Venturino

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Reprints Carol Bien (708) 390-2235

Circulation Manager
Carla Keller (303) 398-7623

Subscriptions/Back Issues
(800) 637-6089

249 W. 17th St., New York, NY 10011
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Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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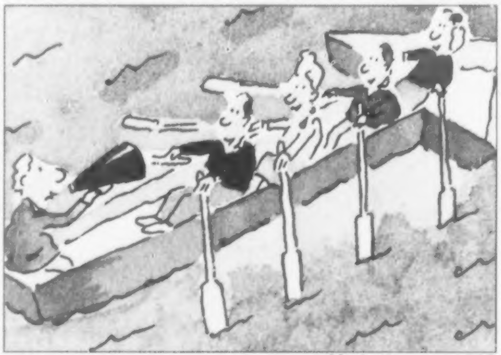

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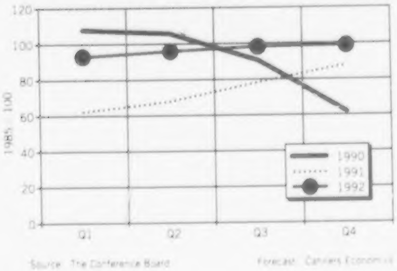
Consumer Buying On the Skids



Source: The Conference Board

Forecast: Cahners Economics

While it is virtually impossible to stop American consumers from spending, their purchasing has slowed down. Inflation surged and consumer spending plunged in the second half of 1990, resulting in an annualized decline of 3.1% for inflation-adjusted consumer expenditures in the fourth quarter of 1990.

For the year, total consumer expenditures managed to post a 1% rise. Hardest hit was spending on nondurable goods (-.9%) and on durable goods (+.1%). Meanwhile, consumer spending on services increased a solid 2.5% for the year.

Evidence of the caution with which consumers are spending their dollars comes from the Conference Board's consumer confidence index. Consumer confidence in the economy has actually been on the decline since early 1989, when it became apparent that economic growth was slowing. It was not until the Iraqi invasion of Kuwait that consumer confidence took a real plunge. In January, the confidence index stood at only half the level of the same month a year ago.

While a resolution to the Middle East crisis is important to recovering confidence levels, consumers will surely be reluctant to boost their spending for quite some time. In particular, slow gains in real disposable income will keep consumers from increasing their spending patterns significantly throughout the coming year. Still, improving trends for inflation and interest rates should raise consumer confidence in 1991, and this is the first step to a recovering consumer sector.

Growth in consumer spending will be flat through 1991, with spending on all goods and services growing less than 1% for the year. A rebound is expected for 1991 with a 3% real gain in consumer spending.

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Commercial printing sales showed relatively strong gains last year, despite the overall slowdown in the economy. Printing activity benefited from strong growth in end markets such as book and periodical publishing, and direct-mail advertising. The datatable of end market indicators shows that a pervasive slowdown in all the traditional publishing and advertising markets is expected for 1991. Printers will do well to search for the pockets of growth which do still exist. For example, the service sector, especially healthcare and fast food, should exhibit above-average growth.

END MARKET INDICATORS

				Annual % Change			
	1988	**1989**	**1990**	**89**	**90**	**91**	**92**
Consumer Spending (1)							
Books	10.50	11.39	12.49	8.5	9.7	7.2	7.1
Mags. & News	17.02	18.47	20.26	8.5	9.7	7.4	8.5
Publishers' Sales (2)							
Total	12.23	14.66	15.43	10.9	5.2	6.1	7.6
Adult Trade	2.28	2.72	2.85	19.1	4.7	6.2	8.6
Juvenile Trade	0.75	0.90	1.04	20.0	15.2	6.7	9.4
Elhi Texts	1.95	1.98	2.05	1.7	3.5	3.0	2.8
College Texts	1.72	1.84	2.01	7.3	9.0	4.2	7.6
Print Advertising Expenditures (3)							
Total	84.57	88.69	92.55	4.9	4.4	5.0	7.2
Newspapers	31.20	32.37	32.86	3.7	1.5	5.9	7.0
Magazines	6.07	6.72	6.88	10.6	2.5	1.1	5.5
Direct Mail	21.11	21.94	23.59	3.9	7.5	5.2	7.8

(1) Billions of Dollars. Data Source: U.S. Dept. of Commerce. (2) Billions of Dollars. Data Source: Association of American Publishers. (3) Billions of Dollars. Data Source: McCann-Erickson, Inc.
All forecast: Cahners Economics

Direct-Mail Sets 'One-Stop' Goal

"Occupant" doesn't live here anymore, as marketers zero in on targets in startling new ways.

If you want to know what's happening in the direct-mail business, look no further than your mailbox.

You'll notice there are certainly more colorful and elaborate pieces, fewer but much more targeted, and almost none addressed simply to "Occupant"; but virtually all are personalized on the inside as well as on the envelope, as marketers attempt to improve responses.

The direct-marketing industry has experienced extraordinary growth in recent years, but as direct marketers are confronted by a weak economy, compounded by a recent postal hike, printers, as their vendors, must now go beyond putting ink on paper in normal turnaround time.

"We're finding that people are laboring over their decisions to use direct mail until literally the last minute, causing a production crunch," reports Doug McKendry, vice president, web sales, Meehan-Tooker Inc., East Rutherford, N.J.

Much to its benefit, the direct-mail industry began maturing—marketing philosophies and technologies have started to evolve—thus putting the industry in a better position to cope with the current strains.

By Lisa Cross
Associate Editor

In the quest for more successful ways to market, the concept of segmenting, or target marketing, was created. Addressing a direct-mail piece to "Resident" or "Occupant" is the exception now, not the rule.

"Direct marketing was phenomenal when we were in the carpet-bombing stage, when we sent a single offer to the entire world, or at least an entire zip code," remembers Jim Fetherston, marketing director, mail production services, at Metromail, Lombard, Ill. "It worked well for a long time; then people decided there had to be something better."

Theoretically, target marketing yields a higher response rate. In turn, smarter mailing offsets increased postal costs. Metromail has taken the concept of targeting to even greater heights than simply personalizing a direct-mail offer by name. What the subsidiary of R.R. Donnelley & Sons calls "Segment of One" attempts to define the personal buying habits of direct-mail recipients (excluded is credit information or other data not of public record) in an attempt to boost the expected response rate.

"We can tailor a direct-mail offer," explains Fetherston, "so that two people on the list to receive an offer would be sent slightly different packages based on information known about them."

Both Metromail and Donnelley have introduced the capability to enable marketers to target smaller niches inside a large single mailing. Known as Selectronic inserting, it is an extension of the binding technology developed by R.R. Donnelley more than 10 years ago. It allows mailers to select multiple versions of outer envelopes, artwork, or copy while maintaining a single mailstream.

"It really has the potential for any size marketer to use. It's just changing the concept; instead of buying names from company A and going to company B, it's the whole package," says Fetherston.

"Marketers are trying to get away from the scatter-shot ap-

Keeping Pace
Congratulations Contest
FLORIDA
32PRINT

Peter Neumann

proach, as it is not the most effective way to operate," he adds. "Costs have greatly increased in the past few years for postage and other things."

In an economy most people now call recessionary, direct marketers often describe their business as a bit anti-recessionary. Most businesses resort more to mail for business needs when sales costs are running high in a recession.

"Basically, direct mail is a process that a number of companies use that is highly measurable and very cost effective as opposed to television, space advertising in magazines, or use of a direct sales force," explains Thomas J. Pruter, president of Moore Response Marketing Service, Libertyville, Ill.

"In some ways, when the economy is in recession, there is opportunity for more and more clients to use the direct-marketing process, or direct-mail, as an alternate means of distribution," Pruter explains.

But if the direct-mail industry is weathering the current economic storm, the recent increase in postal rates has left a cloud over the industry. "We're going to reach a maintenance level. There will be an increase, but not as large if we hadn't had that postal increase," says Larry Ocamb, vice president of Pluzynski/Associates, a New York City-based direct mail and marketing agent specializing in creative, design, and production.

Regarding the most recent postal rate hike, the consensus is that direct marketers will absorb the increase as the cost of doing business, but the quality and quantity of printed pieces may change.

"Direct marketers are now interested in exploring unique production techniques. Instead of producing the standard 11×17" three-fold piece, they're investing in producing better printed products," observes McKendry.

As direct marketers fine tune their audience and product specifications, can printers expect shorter run lengths? Thus far, there has been some movement toward shorter runs, but not a tremendous shift.

"People will probably reduce the quantities they're mailing

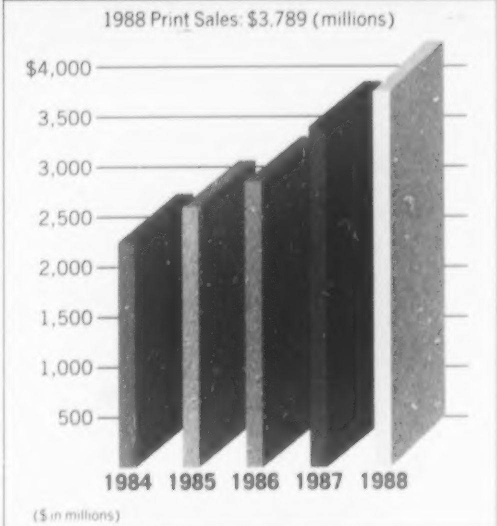
Typical Products

Mail Advertising Pieces
Flyers
Brochures
Letters, Reply Cards
Billing/Statement Stuffers
Coupons
Order Forms
Printed Envelopes (BMR & Window)
Card Decks

Typical Users

Magazine Publishers
Book & Record Clubs
Credit Card Companies
Fund Raisers
Financial/Insurance Companies
Department Stores
Industrial Equipment Suppliers
Office & Business Suppliers
Advertising Agencies

Direct Mail Printing



Major Printers—Direct Mail

Rank	Company	Sales in millions
1	UARCO Inc.	105.0
2	Moore Business Forms Inc.	85.0
	Wallace Computer Services Inc.	85.0
	Webcraft Technologies Inc.	85.0
5	American Business Products	83.0
6	Banta Corporation	82.0
7	Tech Web Incorporated	48.5
8	Standard Register Co.	45.0
9	Charles Communications Inc.	42.0
10	Alden Press Inc.	40.0

Source: PrintMarkets

Chart by Annabelle Carter

and become somewhat more focused, but this will be offset by others who are trying direct mail for the first time," offers Pruter.

Adds Fetherston, "Mail-run lengths haven't really seen a fall yet, but I think marketers are definitely planning for it in 1991."

In light of the changes in the marketplace, printers have expanded the services they offer and deviated from the traditional way of doing business to better assist direct marketers. Gone are the days when a printer simply offered a job quote and printed the job.

"We're convinced the smarter way to do business is for our clients to involve us earlier in the planning stages and let us have an opportunity to guide them. We have a more consultative relationship now," says Fetherston.

Charles Pottenger, sales vice president of Printing Service Inc., Madison Heights, Mich., concurs, adding, "We have a close relationship with clients; printers have to. That trend has been evident."

Not only has the printer/client relationship been altered, but printer services have been expanded as well. Mailing, prepress, and list management are becoming part of the printer's menu of services. The concept of full-service or one-stop shopping has also taken hold. A spot survey revealed:

—"We're finding a trend that more and more printers are becoming the mailer. It cuts down on lead time, gives more control over printing, and offers printers another opportunity to service their client," observes Ocamb.

—"We find that people don't have the luxury of spending a whole lot of time making purchasing decisions; they want a one-roof approach that can offer innovative promotional ideas," says McKendry.

—"We want to offer one-stop shopping to better serve the client," adds Pruter.

—"As we are working with tighter and tighter schedules, it is absolutely important for direct-mail printers to become more full-service," advises Richard Rosetta, president of American Inline Inc., Seymour, Ind.

—Solar Press, Naperville, Ill., offers clients full-service prepress capabilities, and a mailing list correction system. List correction will save clients money by eliminating falloff that can happen with even the most impeccably groomed lists, according to management representatives. The system will standardize addresses to meet postal regulations, complete state abbreviation standardization, correct zip codes, add zip plus four, assign carrier route codes, and presort for carrier delivery.

Not only have the lines that traditionally divided the market blurred, so too have the players. Quick printers have now joined the ranks of direct-mail printers, and at least one copy machine vendor offers the capability to personalize pieces. Eastman Kodak's 2110 and 2120 high-speed optical duplicators can merge names and addresses with the hard-copy originals.

In addition, the boundaries of the marketplace have expanded as some North American companies have begun to set up shops on other continents. Solar Press opened a 50,000-sq-ft production facility in Belgium. For the past several years, Solar had produced orders domestically for the European market, selling through sales agents; at that time, roughly 5% of its sales volume came from Europe.

"Over a period of five years, we expect European sales to make up about 20% of Solar's total sales volume," predicts Frank Hudetz, Solar company chairman and chief executive officer. "We know there is potential well beyond that figure, but companies entering the European market must have patience. The economic agreement of 1992 won't bring instant unification in all areas, and the European direct-marketing industry is still developing."

The direct-marketing business drives a printing segment—varied by nature and often described as convoluted—that must react to a wide array of forces. Despite that, printers, marketers, mailers, and all others involved in the process agree that the outlook for their direct-mail business is bright, and there remain plenty of opportunities to be addressed. ▤

graphic
arts
monthly

Printing Prospers In the Midwest

By Peter Johnston
Special Projects Manager

In the nation's heartland, printers of almost every description did extremely well in calendar 1990, boosting their aggregate year-over-year value of shipments by nearly 7% across the board.

Not only that, but mid-size commercial plants in the region generally prospered: two out of three increased their sales volume—some substantially—and most did a lot better in profit improvement over 1989, our recent survey showed. Though operating capacity declined in 1990, one printer in three expects business to increase this year.

More than one survey respondent reported there was plenty of work in the Midwest region, a few terming the level "tremendous" in their areas. But business shifts are apparently widening the gap between the strongest and weakest. Successful printers report they are scrambling for new growth markets, and a shake-out is imminent among the weak and so-called part-time players.

Of course, all was not rosy throughout the states of Illinois, Indiana, Michigan, Ohio, and Wisconsin. Certain geographic spots slumped; the automobile industry flattened, advertising dropped as weak areas began to stumble, buyer confidence began to erode late in the year, and much of the region saw a continued shift from traditional manufacturing to a service-oriented business base.

Also, like printers everywhere, Midwestern plants are feeling the effects of general overcapacity; more emphasis on service and stiff competition on customer-service issues; pressure from quick-print and photocopy shops; the after-effects of consolidations and mergers both among fellow printers and customers; and overall fear of recession and declining consumer confidence. As businesses act to preserve assets, printers said, there were spending cutbacks and client demands for more value in the printing they buy.

The excellent performance posted by graphic arts plants in the Midwest is even more significant considering that a sizable population shift—involving some two million people, or about 5% of the total—took place in the past decade. Commercial printing levels usually respond directly to changes in population, but apparently this contraction did not prove detrimental.

Inside this detachable fold-out form we present a general industry profile in the five-state region, a close look at commercial printing, demographic data, and listings of leading printers in major markets. Data sources are given on the charts and tables.

The most revealing portion presents survey results among commercial printers. It shows 1989-90 sales changes, the extent of those changes, profitability and capacity comparisons, and a business perception index.

To order reprints of this installation of Print Market Trends, contact Carol Bien, Cahners Publishing Company, Reprint Department, 1350 E. Touhy Ave., Des Plaines, IL 60018.

WISCONSIN
MICHIGAN
ILLINOIS
INDIANA
OHIO

Jean Wisenbaugh

Regional Overview

The printing industry is a leading factor in the economy of the East North Central region, offering a variety of employment opportunities and revenue sources, as well as contributing to the local tax base. Illinois is by far the region's leader with more than one-third of sales (see chart, below). Among larger printers, business forms is the dominant contributor of revenue, followed by commercial and specialty printing, magazines, catalogs, and greeting cards. Dollar figures given throughout this report are unadjusted for inflation.

COMMERCIAL PRINTING

Value of Shipments

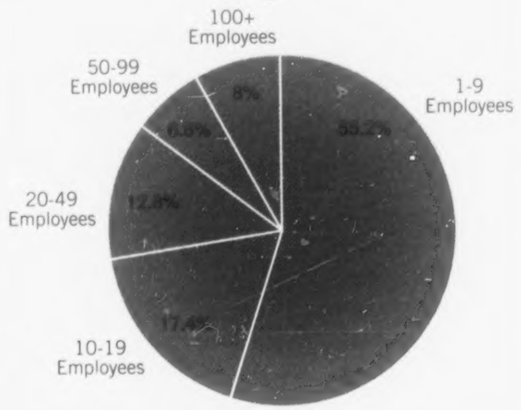
State	Sales, 1990 ($ million)	% of Region	Sales, 1989 ($ million)	% change (1989-1990)
Illinois	$6,340	36.6%	$5,943	6.7%
Ohio	4,267	24.6%	3,995	6.8%
Wisconsin	2,588	14.9%	2,419	7.0%
Indiana	2,098	12.1%	1,969	6.6%
Michigan	2,042	11.8%	1,912	6.8%
TOTAL	**$17,335**	**100%**	**$16,238**	**6.8%**

Printing Sites

State	Sites
Illinois	2,396
Ohio	1,632
Michigan	1,249
Wisconsin	784
Indiana	737
TOTAL	**6,798**

Source: PIA Economics Department

All Graphic Arts Plants, by Employee Count



Source: GAM 1990 Plant Equipment Market Profile

Charts and graphs by Lisa Hilgers

All Graphic Arts Plants, by Function

Function	# of Plants
Commercial	5,481
Newspaper (w/Commercial)	362
Newspaper (w/o Commercial)	357
Book & Pub	457
Business Forms	185
Converters	503
Noncommercial	1,671
Trade	983
Quick Printers	1,005

Source: GAM 1990 Plant Equipment Market Profile

DEMOGRAPHICS

All five of these states are populous (though becoming less so, especially in the farm counties—see text on cover page); three are in the top 10. Michigan, victim of auto industry cutbacks and other Rust Belt problems, has lost the most people, closely followed by Ohio and Illinois.

Population

State	Population	Rank
Illinois	11,552,000	6
Ohio	10,752,000	7
Michigan	9,145,000	8
Indiana	5,504,000	14
Wisconsin	4,785,000	17
TOTAL	**41,738,000**	

Population Changes

State	Change (1980-86)	Net Migration
Wisconsin	1.7%	−125,000
Indiana	0.2%	−206,000
Illinois	1.1%	−377,000
Ohio	−0.4%	−452,000
Michigan	−1.3%	−503,000

Educational Attainment

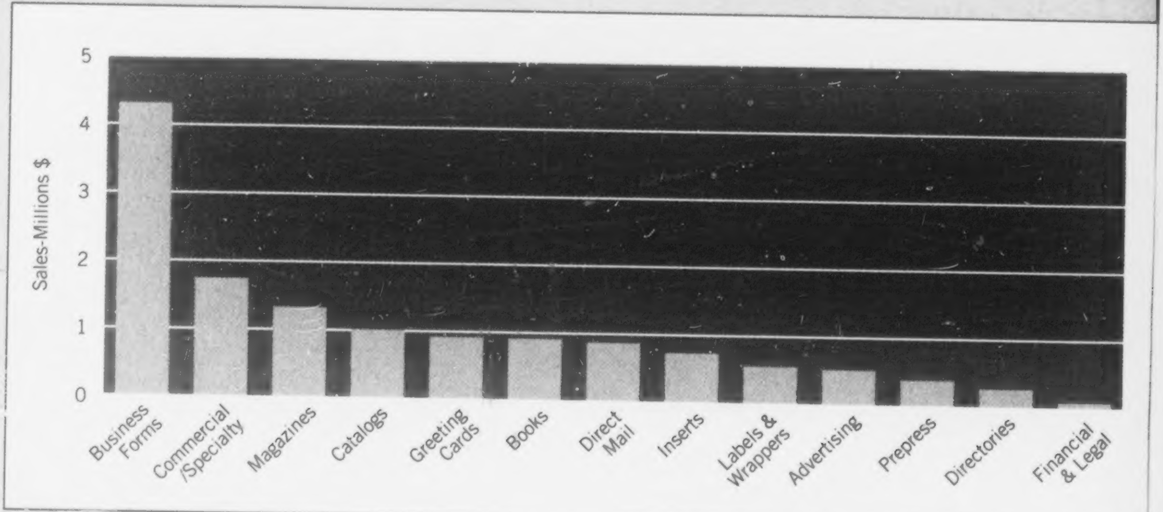
State	High School Graduates	College Graduates
U.S. Average	66.5%	16.2%
Wisconsin	69.6%	14.8%
Michigan	68.0%	14.3%
Ohio	67.0%	13.7%
Illinois	66.5%	16.2%
Indiana	66.4%	12.5%

Source: U.S. Dept. of Commerce; Bureau of the Census

Market Profile

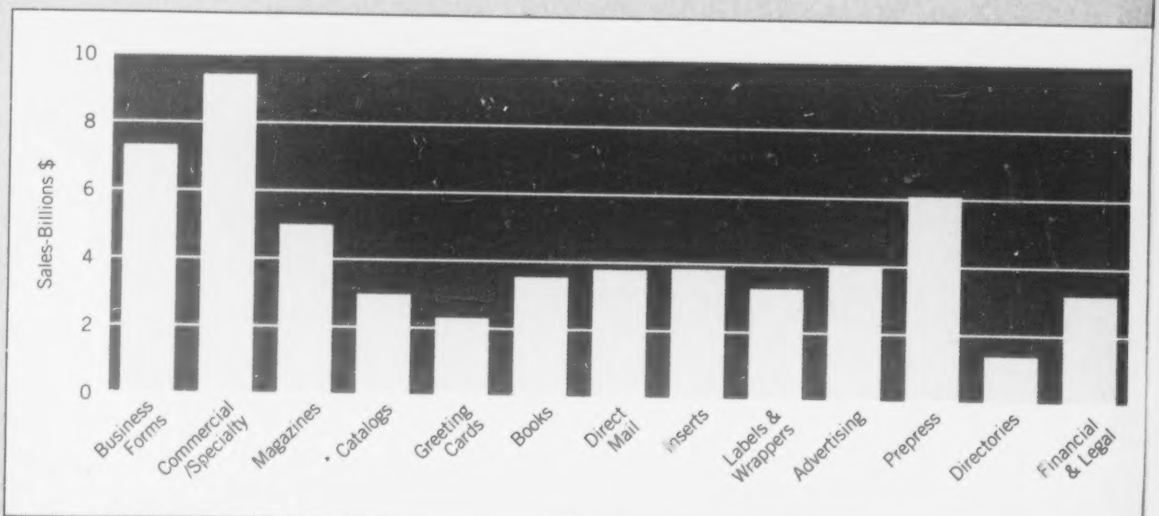
Ranking of Product Segments . . .

The presence of Moore, Standard Register and Uarco in the region accounts for nearly $1.5 billion dollars, and makes business forms the region's biggest segment. The commercial and specialty category here leans toward specialties, with playing cards and other unusual items hea represented. These bar charts are presented in similar der to simplify comparison between segment concentrat in the East North Central and the U.S.



. . . Compared to National Totals

As catalog and magazine printers need a central location because of postal rates, it is not surprising to find them as the other $2 billion segments in the region—followed by strong representation in almost every area of the industry. The only exception, indeed, the only regional segm smaller than $100 million, is financial and legal printing. nancial printing, because of its dependence on nationa nancial markets, is mostly centered in New York City.



Leading Printers in Major Markets

COMPANY	SALES
BUSINESS FORMS PRINTERS	
Moore Business Forms, Inc. Glenview, IL	1420.0
The Standard Register Company, Dayton, OH	480.0
UARCO, Barrington, IL	402.0
Reynolds and Reynolds, Dayton, OH	275.0
NCR Corporation, Dayton, OH	245.0
Duplex Products Inc., Sycamore, IL	240.0
Wallace Computer Services, Hillside, IL	205.0
SCM Allied Paper Incorporated, Dayton, OH	187.0
Star Forms, (Bowater), Moline, IL	142.0
CST Group Inc., Wheeling, IL	87.0
COMMERCIAL/SPECIALTY PRINTERS	
Stone Container, Chicago, IL	485.0
Artfaire, Appleton, WI	107.0
United States Playing Card, Cincinnati, OH	88.0
American Greetings Corporation, Cleveland, OH	79.0
Gibson Greetings, Inc., Cincinnati, OH	59.0
Sleepeck Printing Company, Bellwood, IL	56.0
Herff Jones, Inc., Indianapolis, IN	45.0
American Envelope Company, Chicago, IL	45.0
Rand McNally/Indianapolis, Indianapolis, IN	40.0
C.W. Zumbiel Company, Cincinnati, OH	36.0
MAGAZINE PRINTERS	
R.R. Donnelley/Mattoon, Mattoon, IL	130.0
World Color Press/Salem, Salem, IL	120.0
World Color Press/Crossroads, Effingham, IL	115.0
World Color Press/Spartan, Sparta, IL	95.0
QuadGraphics/Pewaukee, Pewaukee, WI	95.0
QuadGraphics/Lomira, Lomira, WI	55.0
Maxwell/Mt. Morris, Mt. Morris, IL	50.0
Perry Printing/Waterloo, Waterloo, WI	40.0
World Color Press/Vern-Wood, Mt. Vernon, IL	40.0
Ringier America/Pontiac, Pontiac, IL	40.0
CATALOG PRINTERS	
R.R. Donnelley/Warsaw, Warsaw, IN	120.0
R.R. Donnelley/Chicago, Chicago, IL	100.0
Alden Press, Inc., Elk Grove Village, IL	90.0
R.R. Donnelley/Mattoon, Mattoon, IL	80.0
QuadGraphics/Pewaukee, Pewaukee, WI	50.0
Arandell-Schmidt Corporation, Menomonee Falls, WI	43.0
Maxwell/Mt. Morris, Mt. Morris, IL	40.0
Bradley Printing Co., Des Plaines, IL	39.0
Ringier America, Inc., Brookfield, WI	31.0
Noll Printing, Huntington, IN	30.0
GREETING CARD PRINTERS	
American Greetings Corporation, Cleveland, OH	676.0
Gibson Greetings, Inc., Cincinnati, OH	200.6
Warner Press, Inc., Anderson, IN	12.0
The John Henry Company, Lansing, MI	8.5
Masterpiece Studios, Cicero, IL	8.5
Huston-Patterson, Decatur, IL	6.0
Shaw-Barton, Coschocton, OH	6.0
Abbey Press, St. Meinrad, IN	4.5
BOOK PRINTERS	
R.R. Donnelley, Crawfordsville, IN	210.0
Western Publishing, Racine, WI	107.0
Banta Company, Inc., Menasha, WI	100.0
R.R. Donnelley & Sons Company, Willard, OH	90.0
Ringier America, Inc., New Berlin, WI	59.0
Rand McNally & Company, Indianapolis, IN	40.0
Webcrafters, Inc., Madison, WI	39.0
Malloy Lithographing, Inc., Ann Arbor, MI	25.0
Lake Book Manufacturing, Inc., Melrose Park, IL	24.0
Edwards Brothers, Inc., Ann Arbor, MI	23.0
DIRECT MAIL PRINTERS	
UARCO, Barrington, IL	90.0
Wallace Computer Services, Hillside, IL	85.0
Moore Business Forms/Reponse, Libertyville, IL	85.0
Tech Web Incorporated, Wheeling, IL	48.5
Standard Register/Communicolor, Hebron, OH	45.0
INSERT PRINTERS	
R.R. Donnelley/Warsaw, Warsaw, IN	70.0
Valassis/Livonia, Livonia, MI	45.0
Miami Valley Publishing, Fairborn, OH	42.0
Printco, Inc., Greenville, MI	39.0
Maxwell/Mt. Morris, Mt. Morris, IL	35.0

Selective listing, which indicates only the concentration of larger plants in larger segments, is from *Printmarkets*, Trade & Technology Press, Stamford, Conn., based on data provided by firms involved. Sales in millions.

How Printers Are Doing

Based on a survey of firms in the region, conducted by Cahners Publishing

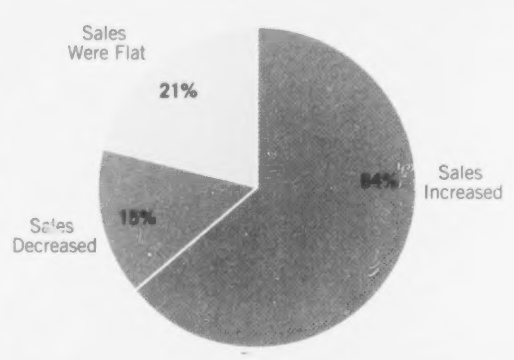
Profile of Respondents

Commercial printers in the East North Central region responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. The following information is as reported by survey respondents; 1990 gross sales were estimated.

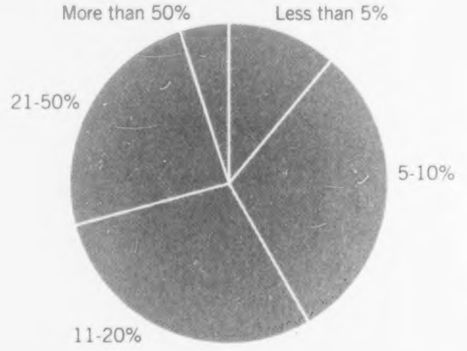
Gross Sales in 1990	
Less than $500,000	6.7%
$500,000-749,999	6.7%
$750,000-999,999	16.3%
$1 million-2,499,999	26.0%
$2,500,000-4,999,999	18.3%
$5,000,000-9,999,999	20.2%
$10 million or more	5.8%

# of Employees	
1-4	3.8%
5-9	9.6%
10-19	32.7%
20-49	27.0%
50-99	19.2%
100 +	7.7%

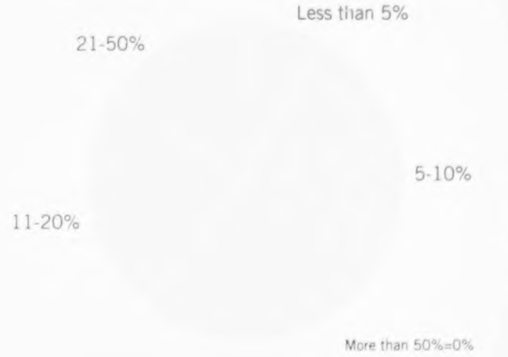
How Sales Changed, 1989 to 1990



If Sales Increased, How Large Was Increase?

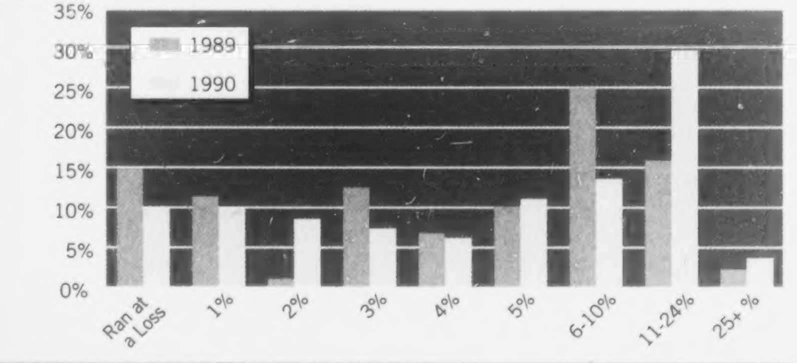


If Sales Decreased, How Large Was Decrease?

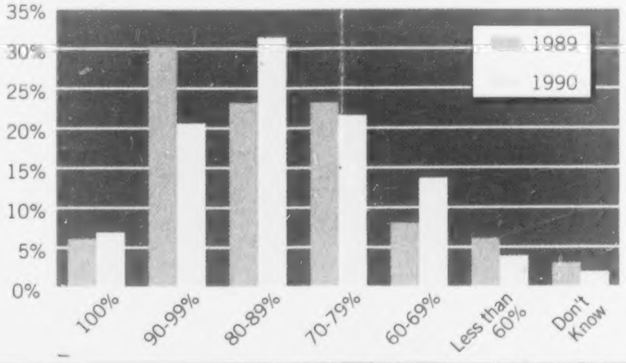


PROFITABILITY & CAPACITY

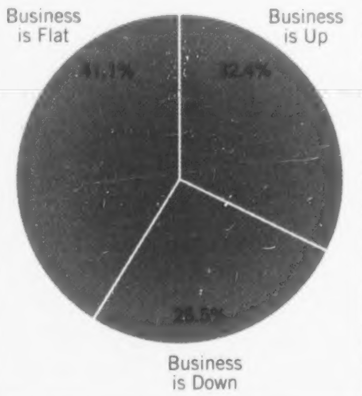
Profit as a percentage of gross sales



Operating percentage of plant capacity

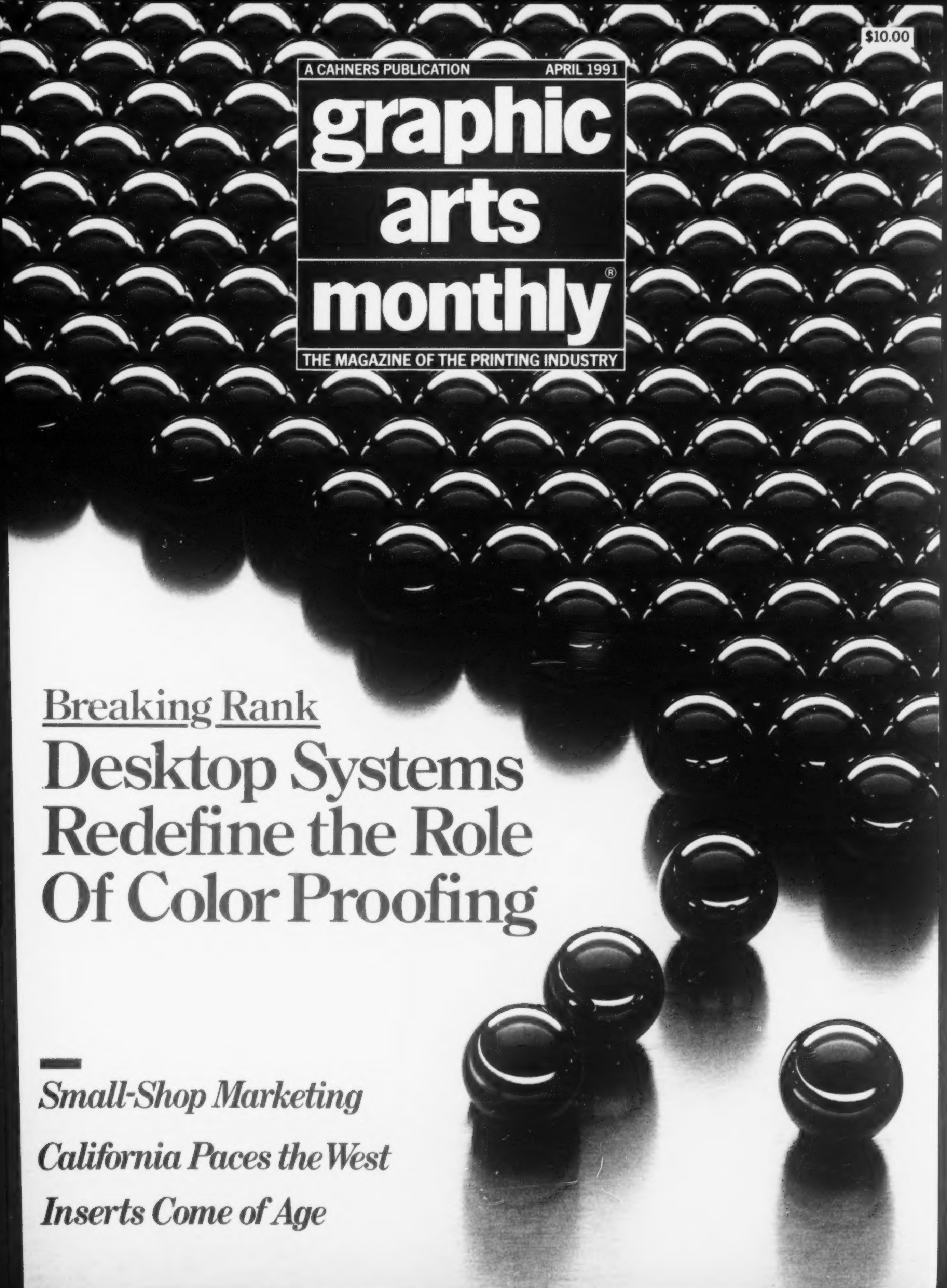


Perception Index



Comments by Printers

- It is time to weed out the part-time players (the low ballers); the strong ones like us shall survive, since there is plenty of work out there.
- I believe that the growth in our area is not from economic growth, but our company's ability to gain market share.
- Too much capacity; several printers are in trouble.
- A proliferation of quick printers; customers are heading for electronic publishing.
- Some fallout, but more growth in region.



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THE MAGAZINE OF THE PRINTING INDUSTRY

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Desktop Systems Redefine the Role Of Color Proofing

Small-Shop Marketing

California Paces the West

Inserts Come of Age

VOLUME 63, NUMBER 4

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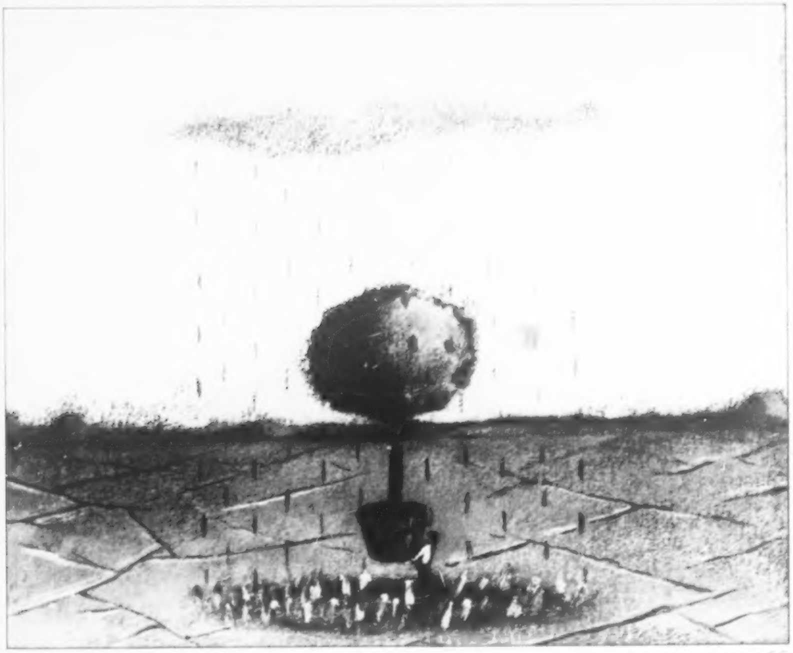

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Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Jeff Rothstein

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager
Richard Negri (212) 463-6827

Business Manager
Jerry Arotsky (212) 463-6603
Facsimile: (212) 463-6653

Contracts Coordinator
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Production Manager
Daniel Coakley (212) 463-6545
Facsimile: (212) 463-6560

Promotion Manager
Dorian Torregrossa

Research Manager Angela Venturino

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Reprints Carol Bien (708) 390-2235

Circulation Manager
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Subscriptions/Back Issues
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249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
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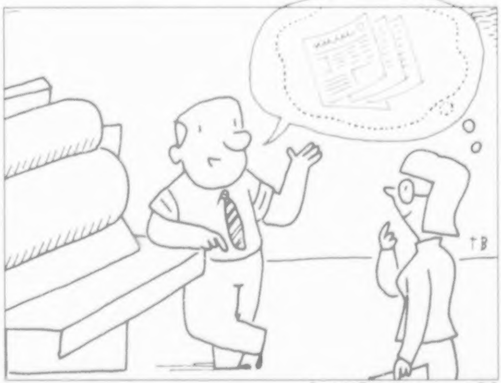

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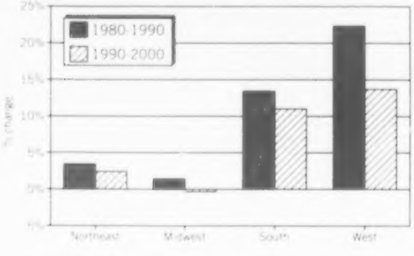
Population Growth Strongest in the Sunbelt, West



Source: Bureau of the Census

Early results from the 1990 census show the U.S. population rose 9.8% from 1980 to 1990, to total over 248 million. This represents an average annual increase of 2.2 million people. U.S. population growth in the 1980s was only slightly slower than in the 1970s, when it was 11.4%, or 2.3 million people per year.

Population increases continued to be much greater in the Sunbelt—the South and West regions—than in the Frostbelt, even though key areas in the Frostbelt experienced a strong economic boom during the 1980s, and key areas of the Sunbelt were in recession. Population growth in the Northeast region was 3.4% from 1980 to 1990. Growth in the Midwest was even lower at 1.4%. Meanwhile, the population in the South and West grew 13.4% and 22.3%, respectively, over this period.

States in the West claim six of the top 10 spots, in terms of population growth, including the top three: Nevada, Alaska, and Arizona. Only one state in the Frostbelt, New Hampshire, joined the top 10 states with the highest population growth. In absolute growth terms, 45% of the total population gains for the nation were in the South, as the South gained an additional 10 million people throughout the 1980s.

The U.S. Census Bureau projects that population growth in the 1990s will slow even further. Regional disparities are even greater in this projection. Slow population growth in the Midwest will turn to a slight decline. Both the South and the West will continue to outpace the national growth rate; the fastest-growing regions over the next decade will be the Mountain states (14.5%), the South Atlantic states (14.3%), and the Pacific states (13.4%).

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Employment in the printing and publishing industry finished 1990 with 3,400 fewer workers, placing the year-end average 0.9% above the previous year. Most of the employment decline stemmed from the printing side of the industry. The commercial printing sector lost 2,400 jobs from December 1989 to December 1990. Employment in the manifold business forms sector declined by 1,600 jobs, and blankbooks and bookbinding lost 200 jobs over this period. Industry wages managed to post healthy gains. Wage gains were 3.5% in commercial printing, 3.4% in business forms, 1.7% in blankbooks and bookbinding, and 3.7% in printing trade services.

PRINTING INDUSTRY SUPPLY INDICATORS

				Annual Percent Change			
	Dec 89	**Nov 90**	**Dec 90**	**1989**	**1990**	**1991**	**1992**
Employment							
Printing & publishing (1)	1581.5	1578.0	1578.1	1.0	0.9	0.8	2.4
Commercial printing (1)	553.5	551.7	551.1	0.9	0.9	0.7	2.5
Productivity							
Printing & publishing (2)	99.5	107.6	103.4	5.0	2.2	2.6	1.8
Average Hourly Earnings							
Printing & publishing (3)	11.09	11.38	11.46	3.4	3.4	3.4	3.6
Commercial printing (3)	11.36	11.61	11.72	3.3	3.5	2.8	3.7
Paper shipments							
Coated paper (4)	585	642	564	-2.6	3.9	4.7	2.4
Uncoated groundwood (4)	123	151	147	10.0	0.4	-1.0	3.1
Uncoated free sheet (4)	864	942	930	-2.6	4.1	1.8	4.1
	Q3/89	**Q2/90**	**Q3/90**	**1989**	**1990**	**1991**	**1992**
Graphic Arts Machinery							
new orders (5)	170.5	140.3	113.0	4.0	-8.9	6.5	6.6
shipments (5)	154.4	146.6	136.2	1.5	-7.4	-2.8	6.2
Graphic Arts Supplies							
shipments (5)	143.3	155.0	148.6	4.5	4.0	4.8	3.3

(1) thousands of employees, U.S. Dept. of Labor; (2) index, 1977=100, Cahners Economics; (3) dollars per hour, U.S. Dept. of Labor; (4) thousands of short tons, American Paper Institute; (5) index, 1981=100, NPES
All forecasts by Cahners Economics

Inserts Come of Age

This once rapid-growth printing market is no longer immune to the ill effects of a slow economy.

It's hard to imagine a Sunday newspaper free of advertising circulars and coupons. Free-standing inserts have become a section of their own in the nation's newspapers.

The free-standing insert is defined as any preprinted product that is inserted into a newspaper, but is not part of the actual printing process of the newspaper. While the retail products and services offered in inserts appear unlimited, there are basically two types of free-standing inserts: advertising circulars and coupons.

In the past, both components of the insert printing market have been victorious in gaining advertisers' dollars in an economic downturn. Inserts are considered by retailers to be the most cost-effective means of delivering an advertising message. Printing an insert is less expensive than radio and television advertising. Since inserts contain pricing information, they are better traffic builders than television and radio, which are used primarily to build image.

"Some companies have a tendency during tough times like now to increase their print expense. The simple facts are that circulars work; they are of high value to the retail company versus other advertising mediums," explains Bob Russell, senior vice president–sales, Quebecor, Montreal.

By Lisa Cross
Associate Editor

In general, ad circular and coupon printers have performed well in recessionary periods of the economy. However, the current economic downturn has ad circular printers worried, while coupon printers report gains.

"This recession, for whatever reason, is different," says James Pentecost, president, Printco, Greenville, Mich. "We're seeing some cutbacks by the retailers in their entire ad budgets, including inserts. We've also noticed that page counts in the last year have been less than in prior years." Adds Jim Middendorf, marketing director, catalog group, R.R. Donnelley & Sons, Chicago, "1991 is being approached cautiously by most retailers and discounters; selected companies, however, are advertising aggressively. Our expectations are for a stronger demand in the second half of the year."

It's no secret that the retail business is not particularly good right now. Christmas was, in a word, a disaster for the retail industry. In addition, a number of retail companies have gone out of business or been acquired, thus shrinking insert printers' client base.

"There has been a big shakeout with our traditional retail customer," reports Russell. "For example, Ames bought Zayre, and now Ames has filed for Chapter 11. When Ames acquired Zayre, it consolidated some of its print requirements, and was buying less print."

The consolidation among retailers will certainly have an impact on the printers of ad circulars. Middendorf predicts the following:

—As retailers consolidate, they will tend to combine their ad requirements more to improve their purchasing clout.

—Retailers will probably rely more on their proven suppliers with a broad range of production and distribution capabilities.

AEROFOIL
Sal
BY TR
Cool Offers from Bonanza... for Lunch or Dinner
ECKERD
1/2 PRICE SALE
1/2 PRICE GIFTS FOR TH
Save 20%
Eckerd Brand Sale
savers!
FIX'N & GIFTS

Peter Neumann

—The overall result will be fewer but larger printers.

—Printers, to be successful, will have to find their best market niche.

The growth experienced in the ad circular printing market in the mid-1980s has already begun to wane. Coupled with a decreasing client base and a saturation of the marketplace are changes that have occurred in printing equipment and the printing process used to meet the market's needs. Printers are purchasing presses that are faster and more efficient than the presses they're replacing. Additionally, there has been a gradual change to print inserts heatset, with shorter cutoffs.

"If printers are replacing press for press, the presses that are coming on line have more capacity and output than the old presses," reveals Pentecost. "So there are more presses or more capacity in the market and a slowed market growth; these lines are crossing and it's causing an overcapacity problem."

In certain months there is overcapacity in ad circular printing, while in other months capacity is very limited. Says Middendorf, "This situation is created by the varying seasonal demand for printed advertising relating to holidays, i.e., Christmas and promotions such as back-to-school."

The end of the year is usually the busiest for ad circular printers, and then it becomes an issue of not enough capacity to print. However, points out Pentecost, "A lot of the pricing that we're offering now to our customers is locked in for the year." He adds, "I hate to sound so pessimistic, but we are preparing ourselves to weather out the storm; and we're prepared for a long storm, you might say."

The overcapacity problem plaguing the ad circular printing business is spotty as well, since there are four printing processes used: heatset, coldset, rotogravure, and flexography. According to company spokespeople from Sullivan Graphics, the breakdown of the insert indus-

Typical Products

Preprinted Advertising Sections in Newspapers
Broadsides, Tabloids
Product Coupons
Shopping Guides

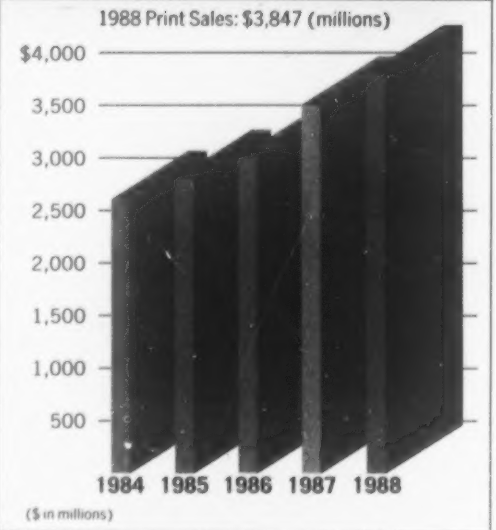
Typical Users

Retailers
Department/Discount Stores
Advertising Co-ops and Coupons

Printing Processes Used

Heatset
Rotogravure
Nonheatset
Flexography

Inserts



Major Printers—Inserts

Rank	Company	Sales in millions.
1	Treasure Chest Advertising	390.0
2	R.R. Donnelley & Sons Co.	330.0
3	Maxwell Communications Corp.	238.0
4	Sullivan Graphics Inc.	205.0
5	Charles Communications Inc.	128.0
6	Valassis Inserts	110.0
7	Brown Printing Company	105.5
8	Meredith/Burda Corp.	90.0
	QuadGraphics Inc.	90.0
10	Shea Communications	60.0

Source: PrintMarkets

Chart by Annabelle Carter

try, by printing process, based on industry data, is as follows: nearly 40% is heatset offset, 33% cold web offset, 25% rotogravure, and flexo at approximately 3%.

"Certainly there is an overcapacity for some types of equipment, but I wouldn't say there's overcapacity across the board," reports Alan Zeigler, marketing vice president for Sullivan.

For the ad circular printer, business is fiercely competitive, not only because of capacity issues but because of pressures from the retailers. As retailers struggle to survive, they are asking suppliers for help in cutting their costs.

"You have an implicit message coming from the retailer that we as a retailer are not doing well and therefore our suppliers have to help us, and that may be in the area of cutting costs for the retailer," Pentecost explains.

Despite a not-so-bright economic picture, printers of ad circulars have made strong commitments to remain competitive. Better service and significant investments in printing facilities have been the printer's answer to differentiating themselves from their competition.

Some printers are easing the burden of distribution and costs to gain market share. Sullivan Graphics is capitalizing by extending the use of its presses that print newspaper comic sections.

Explains Zeigler, "At the same time we're printing the comics, we can print four-color advertising that is delivered from the press as part of the comics section. But as far as the consumer's eye can tell, it's a completely free-standing insert."

The advantages are better control of distribution and cost since the insert does not have to be inserted by the newspaper.

"The distinct difference for our clients is the price advantage by doing a comic press insert versus a free-standing insert and paying a substantial fee to insert it," says Zeigler.

The ads on comics can take any number of formats. For example, they can be wrapped around the comics; folded as a tabloid or standard page format placed in the center of the comics—like all the other inserts; or printed on the same pages as the comics, which is known as in-comic advertising.

Huge capital investments by printers have become a regular requirement in the insert printing business. "The capital cost to stay in this business for a printer is a great one," reports Russell. "The technology for prepress or press constantly improves and we have to commit the capital necessary to stay on top."

"All retailers are looking for better quality, shorter schedules, and cheaper prices," he adds.

Treasure Chest Advertising recently expanded its San Antonio Division to house a new wide-width heatset press. Company representatives report that with the installation of the press they plan to capture an increased share of the advertising circular market and open new markets, including catalogs, this year. In the last five years the company invested more than $100 million in new plants and equipment.

For coupon printers, on the other hand, business is booming. As with ad circulars, brand managers and marketers putting their budgets under tight scrutiny also tend to move away from expensive, long-term, image-building, and often-immeasurable advertising, and migrate to coupons. Coupons have an immediate effect on sales, are measurable, and contribute to keeping distribution and forcing trade support promotions with merchandising.

"Our company has lived through a couple of recessions. It appears we're in our third one and we're experiencing an upturn in our business," says David Brandon, chief executive officer, Valassis Inserts.

"During the first quarter of this year pages are up and sales activity is strong. Certainly the recession is a contributing factor," Brandon.

Thus, even as coupon industry insiders report their business is performing well, the ad circular business has leveled off. The situation could change, based on shifts in capacity and the direction of the economy. Stay tuned to your local newspapers for further developments. ▤

graphic arts monthly

California Sets Hot Pace

The Pacific states (Alaska, California, Hawaii, Oregon, and Washington) comprise the most far-flung and arguably the most beautiful region of the entire country. The region extends from below the Tropic of Cancer to Pt. Barrow, Alaska, several hundred miles above the Arctic Circle, and contains virtually every kind of landscape that occurs on earth, not to mention the differing human populations.

We point this out partly by way of apology to Alaska, Hawaii, Oregon and Washington. This is, after all, a specialized economic survey, and not strictly a tour guide, which means that these four states, for all their wild beauty, here will serve mostly as footnotes to a report on California.

The reason for this is that California is far and away the most populous state in the union. With its 27 million people it is not merely one of the so-called super states, it is in some ways *the* super state. It is a whopping 52% larger than the second-largest state, New York.

It isn't that dominant in the printing industry (though it is, in terms of volume, the leader), primarily, we suspect, due to the regulations of the United States Postal Service. As long as second- and third-class postage are calculated on the number of zones a piece has to cross (and as long as 200 million or so people persist in *not* living in California), there will be many kinds of long-run printing that cannot be cost-effectively done on the West Coast.

California still manages to be pretty dominant, though; its total printing volume is 25% larger than New York and 27% larger than Illinois, the other two major printing states. Regionally it has almost 82% of the printing in the five-state area.

By all the yardsticks we employ to measure the printing industry in this series, printing in the Pacific (everywhere, not just in California) is thriving. Sales growth for the region, 1989-1990, was 7.8%, a full point higher than we saw in the East North Central last month.

In our ongoing survey of small-to medium-sized commercial printers, almost 68% reported a sales gain for the period, the largest percentage we have seen so far. The percentage of those reporting large gains (i.e., gains of more than 10%) is also slightly larger than in previously studied regions. In terms of profitability and capacity, the gap narrows; the Pacific and the East North Central are roughly the same. To see what effect dynamic growth can have, take a look at our Perception Index. The percentage of those perceiving business as up is 38.8%, the highest yet studied; by way of contrast, the same number for New England was 11.4%.

The most revealing portion of the fold-out presents survey results among commercial printers. It shows sales changes from 1989 to 1990, the extent of those changes, profitability and capacity comparisons, and a business perception index.

Reprints of this installation may be ordered directly from Carol Bien, Cahners Publishing Company, Reprint Department, 1350 E. Touhy Ave., Des Plaines, Ill., 60018.

WASHINGTON
ALASKA
OREGON
CALIFORNIA

Jean Wisenbaugh

By Peter Johnston
Special Projects Manager

Regional Overview

Printing is a solid contributor to the economy of the Pacific region, though it ranks well behind aerospace/defense, agriculture, electronic equipment, oil, tourism, and movie and television production. Advertising, newspaper inserts, and commercial printing are the leading segments among larger printing companies. Dollar figures given throughout this report are unadjusted for inflation.

COMMERCIAL PRINTING

Value of Shipments

State	Sales, 1990 ($ million)	% of Region	Sales, 1989 ($ million)	% change (1989-1990)
California	$8,033	81.6%	$7,442	7.9%
Washington	904	9.3%	841	7.5%
Oregon	751	7.6%	699	7.4%
Hawaii	118	1.2%	110	7.3%
Alaska	33	0.3%	31	9.6%
TOTAL	**$9,839**	**100%**	**$9,123**	**(avg.) 7.8%**

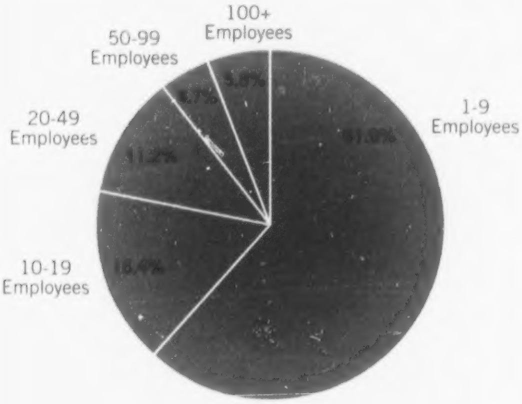
Source: PIA Economics Department

Printing Sites

State	Sites
California	4,757
Washington	599
Oregon	464
Hawaii	93
Alaska	33
TOTAL	**5,946**

Source: PIA Economics Department

All Graphic Arts Plants, by Employee Count



Source: GAM 1990 Plant Equipment Market Profile

Charts and graphs by Lisa Hilgers

All Graphic Arts Plants, by Function

Function	# of Plants
Commercial	4,118
Newspaper (w/Commercial)	139
Newspaper (w/o Commercial)	281
Book & Pub	415
Business Forms	122
Converters	219
Noncommercial	1,105
Trade	758
Quick Printers	905

Source: GAM 1990 Plant Equipment Market Profile

DEMOGRAPHICS

Population

State	Population	Rank
California	26,981,000	1
Washington	4,462,000	20
Oregon	2,698,000	30
Hawaii	1,062,000	39
Alaska	534,000	49
TOTAL	35,737,000	

Population Changes

State	Change (1980-86)	Net Migration
Alaska	32.8%	71,000
California	14.0%	1,778,000
Hawaii	10.1%	16,000
Washington	8.0%	105,000
Oregon	2.5%	−49,000

Educational Attainment

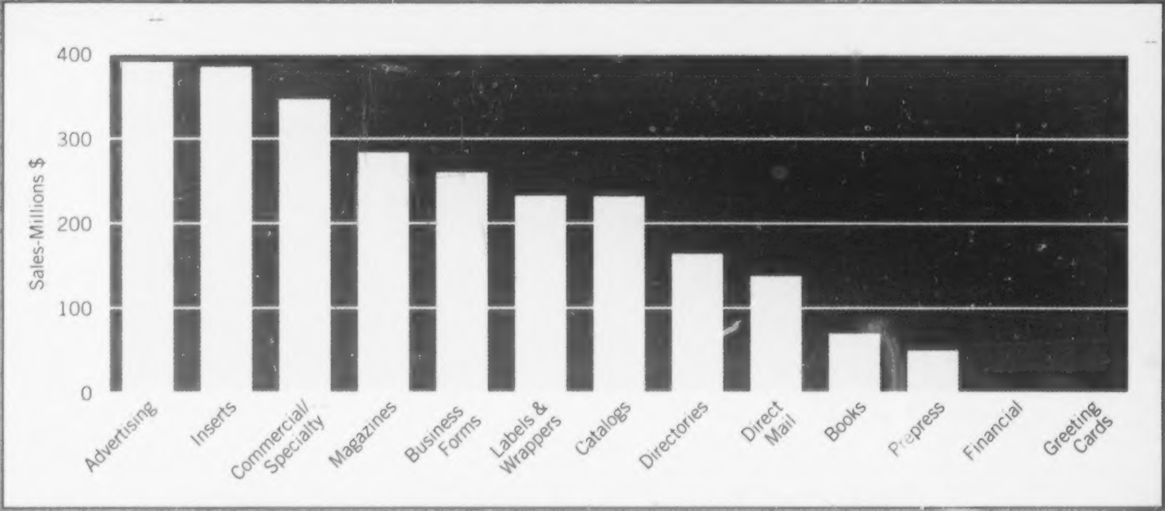
State	High School Graduates	College Graduates
U.S. Average	66.5%	16.2%
Alaska	82.5%	21.1%
Washington	77.6%	19.0%
Oregon	75.6%	17.9%
Hawaii	73.5%	20.3%
California	73.5%	19.6%

Source: U.S. Dept. of Commerce, Bureau of the Census

Market Profile

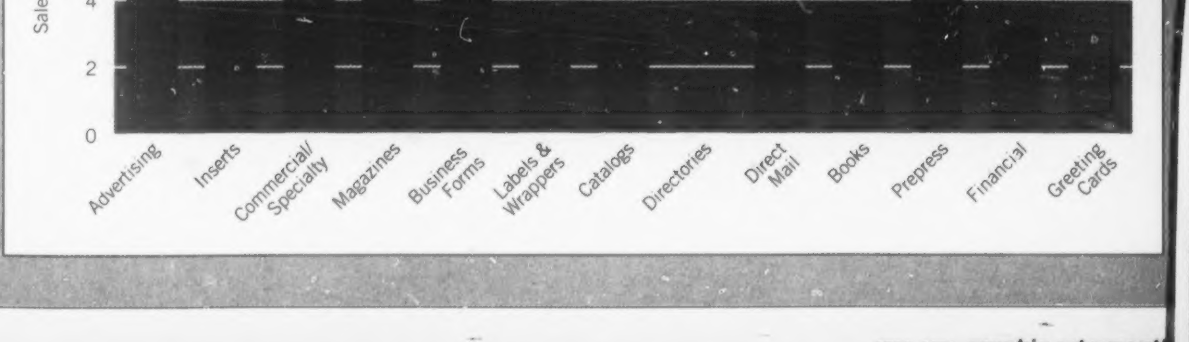
Ranking of Product Segments . . .

As we noted on the cover page, geographic and postal considerations make the magazine, catalog, and direct-mail segments in the Pacific somewhat less important than they might be otherwise. Greeting cards does not appear in regional totals; it is a segment comprised of a few major players, all located elsewhere. Financial & legal, almost entirely concentrated in the Northeast, is also missing. Among the other major segments, the distribution is surprisingly even. Note that the region's top two categories comprise about 10% of the total, in line with population proportions.



. . . Compared to National Totals

These bar charts are presented in similar order to simplify comparison between segment concentration in the Pacific region and the U.S. as a whole. Beyond greeting cards and financial & legal printing, there are some interesting disparities. Both commercial printing and prepress are proportionately far less important in the Pacific, while advertising and inserts (as befits California's enormous population) are quite a bit more dominant. After the two leaders, the region's segment share drops to 3.6% in commercial/specialty, 5.6% in magazines, and 3.5% in business forms.



Leading Printers in Major Markets

COMPANY	SALES
ADVERTISING PRINTERS	
Graphic Arts Center, Portland, OR	45.0
Anderson Lithograph, Los Angeles, CA	30.0
George Rice & Sons, Inc., Los Angeles, CA	30.0
K/P Graphics, Berkeley, CA	23.0
Frye & Smith, Costa Mesa, CA	17.0
Penn Lithographics, Cerritos, CA	17.0
Welsh Graphics, Pasadena, CA	17.0
Madison/Graham ColorGraphics, Los Angeles, CA	15.0
The Dot Printer, Inc., Irvine, CA	14.0
George Lithograph Company, San Francisco, CA	14.0
Rotary Offset Sales Company, Seattle, WA	26.5
RFD Publications, Tigard, OR	26.5
Treasure Chest Advertising, West Sacramento, CA	23.0
Treasure Chest Advertising, Pomona, CA	21.0
Treasure Chest Advertising, Portland, OR	20.0
Continental Graphics, Los Angeles, CA	16.0
INSERT PRINTERS	
Riverside County Publishing, Riverside, CA	85.0
GBP Industries, Pittsburg, CA	40.0
Sun Litho Inc., Van Nuys, CA	35.0
Treasure Chest Advertising, City Of Industry, CA	30.0
COMMERCIAL/SPECIALTY PRINTERS	
Scantron Corporation, Tustin, CA	34.0
George Rice & Sons, Inc., Los Angeles, CA	33.0
Pacific Lithograph Company, San Francisco, CA	30.8
Jostens Printing & Publishing, Visalia, CA	25.0
Continental Graphics, Los Angeles, CA	20.0
Fong Brothers Printing, Brisbane, CA	16.0
Sinclair Printing Company, Los Angeles, CA	13.5
Craftsman Press Printing, Seattle, WA	13.5
The Dot Printer, Inc. Irvine, CA	12.5
Lithotype Company, South San Francisco, CA	12.0
MAGAZINE PRINTERS	
Arcata Graphics, San Jose, CA	55.0
R.R. Donnelley & Sons Company, Torrance, CA	50.0
GBP Industries, Pittsburg, CA	25.0
World Color Press, Inc., Merced, CA	25.0
Ringier America, Inc., Fullerton, CA	23.0
Continental Graphics, Los Angeles, CA	17.0
California Offset Printers, Glendale, CA	12.0
Treasure Chest Advertising, Pomona, CA	10.0
Treasure Chest Advertising, West Sacramento, CA	10.0
Wolfer Printing Company, Commerce, CA	10.0
BUSINESS FORMS PRINTERS	
Vanier Graphics Corporation, Santee, CA	63.0
Apperson Business Forms, Los Angeles, CA	32.0
Riccobon Business Forms, Santa Fe Springs, CA	22.0
Advance Business Forms, Mira Loma, CA	18.0
Wright Business Forms, Inc., Portland, OR	17.5
Sterling Business Forms, Central Point, OR	16.5
Block Business Forms, Portland, OR	16.0
K/P Graphics, Berkeley, CA	15.0
Avery International, Pasadena, CA	15.0
Wright Business Forms, Inc., Portland, OR	12.0
LABEL/WRAPPER PRINTERS	
Avery International, Pasadena, CA	110.0
H. S. Crocker, Co., South San Francisco, CA	42.0
GM Nameplate, Seattle, WA	19.0
Vanier Graphics Corporation, Santee, CA	13.0
Label-Aire, Inc, Fullerton, CA	9.0
Bert-Co Graphics, Los Angeles, CA	8.5
National Printing Converters, Van Nuys, CA	8.5
MPI Label Systems, Stockton, CA	8.0
Pacific Lithograph Company, San Francisco, CA	7.7
Bee Line Inc., Union City, CA	5.5
CATALOG PRINTERS	
Graphic Arts Center, Portland, OR	65.0
George Rice & Sons, Inc., Los Angeles, CA	27.0
Continental Graphics, Los Angeles, CA	25.0
Anderson Lithograph, Los Angeles, CA	20.0
R.R. Donnelley & Sons Company, Torrance, CA	15.0
DIRECTORY PRINTERS	
World Color Press, Inc., Merced, CA	70.0
GTE Directories Press, Los Angeles, CA	45.0
Norwest Publishing Company, Portland, OR	40.0
Ringier America, Inc., Fullerton, CA	5.0
Andrews Printing Co., Lakewood, CA	3.0

Selective listing, which indicates only the concentration of larger plants in larger segments, is from *Printmarkets*, Trade & Technology Press, Stamford, Conn., based on data provided by firms involved. Sales in millions.

How Printers Are Doing

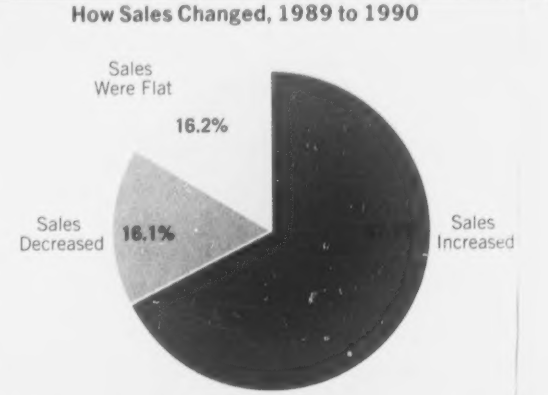
Based on a survey of firms in the region, conducted by Cahners Publishing

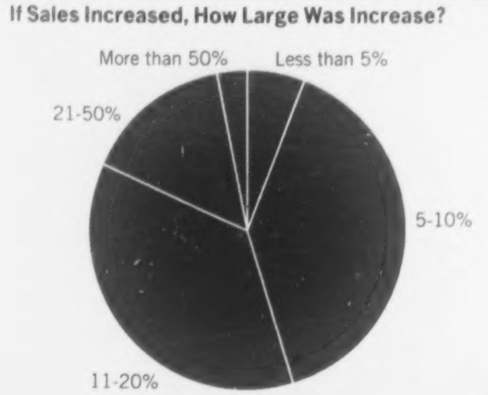
Profile of Respondents

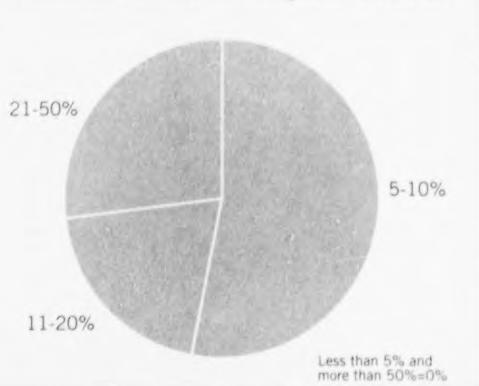
Commercial printers in the Pacific region responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. The following information is as reported by survey respondents; 1990 gross sales were estimated.

Gross Sales in 1990	
Less than $500,000	8%
$500,000-749,999	17%
$750,000-999,999	20%
$1 million-2,499,999	31%
$2,500,000-4,999,999	16%
$5,000,000-9,999,999	6%
$10 million or more	2%

# of Employees	
1-4	7%
5-9	17%
10-19	38%
20-49	24%
50-99	10%
100 +	4%

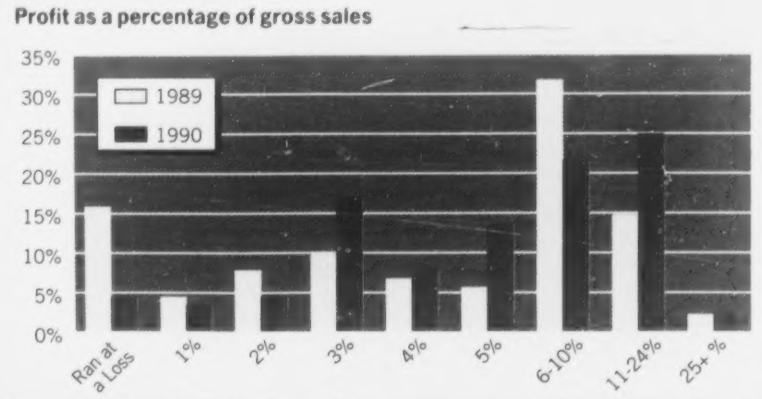

How Sales Changed, 1989 to 1990

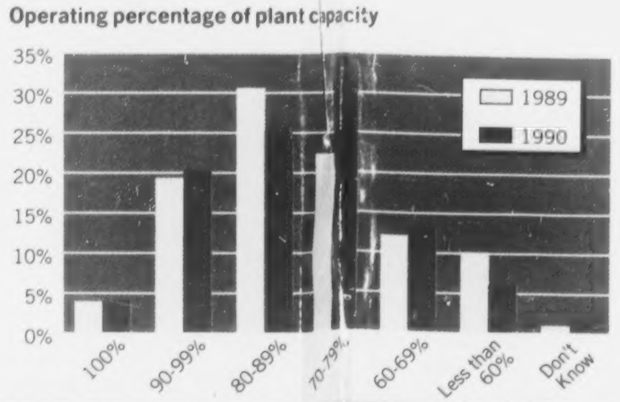

If Sales Increased, How Large Was Increase?

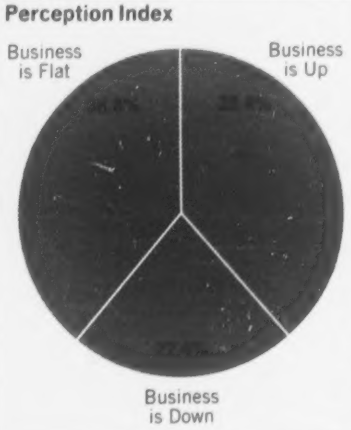

If Sales Decreased, How Large Was Decrease?

Less than 5% and more than 50%=0%

PROFITABILITY & CAPACITY

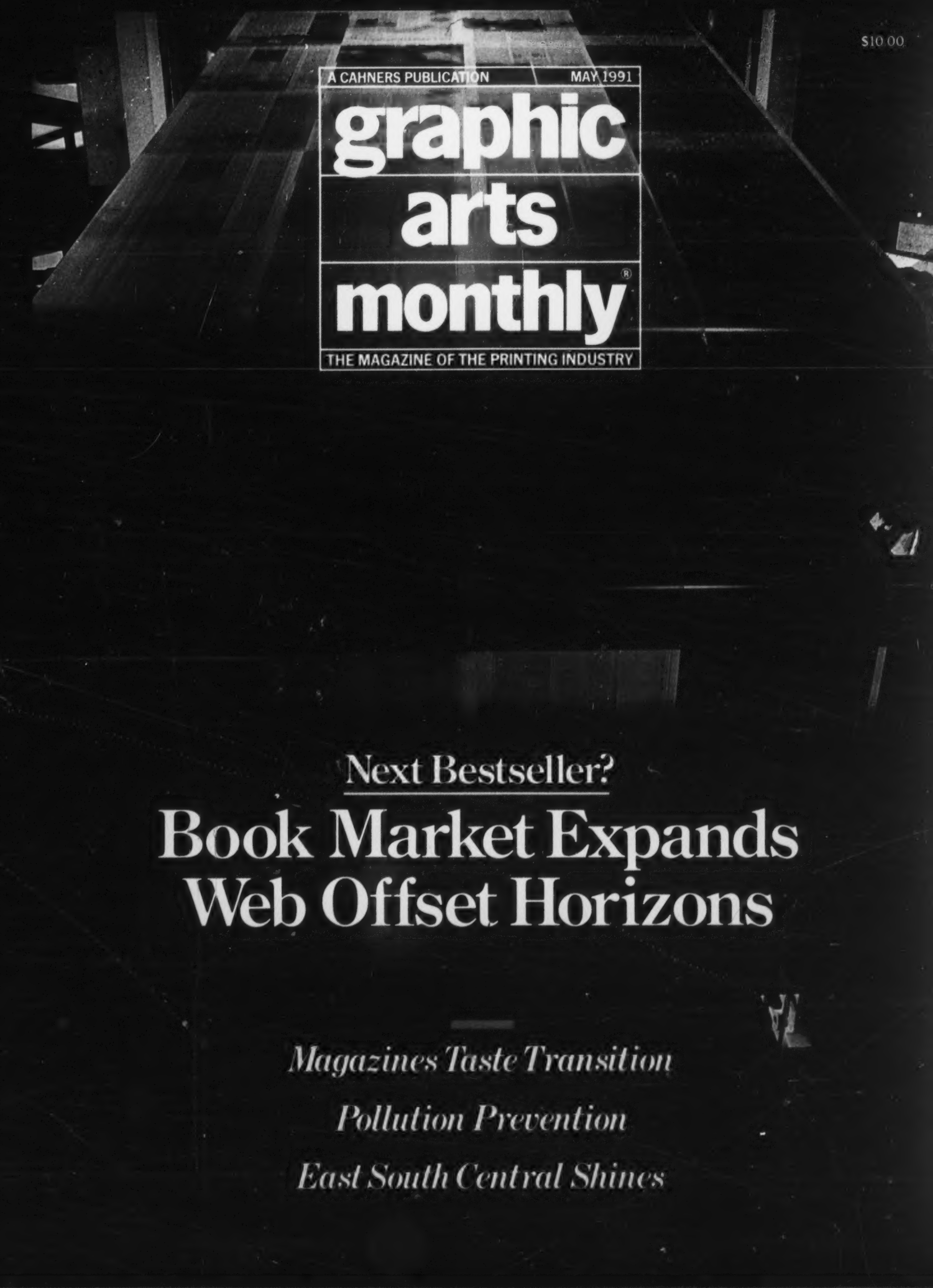

Profit as a percentage of gross sales


Operating percentage of plant capacity


Perception Index

Comments by Printers

- We're giving our customers quality printing at a low price.
- With the addition of an eight-color web and one more sales rep, we are now swamped.
- This is a rapid growth market.
- We're looking very healthy at this time.
- Competition is intensifying due to faster presses and more plants.
- With the general recession and decline in military spending and tourism, I still believe our sales will be stable.



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A CAHNERS PUBLICATION MAY 1991

graphic arts monthly®

THE MAGAZINE OF THE PRINTING INDUSTRY

Next Bestseller?

Book Market Expands Web Offset Horizons

Magazines Taste Transition

Pollution Prevention

East South Central Shines

VOLUME 63, NUMBER 5

A CAHNERS PUBLICATION MAY 1991

TOTAL CIRCULATION: 99,585

graphic arts monthly

THE MAGAZINE OF THE PRINTING INDUSTRY

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Vice-President and Publisher
Ronald C. Andriani

Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken,
Lisa Cross

Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Jeff Rothstein

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager
Richard Negri (212) 463-6827

Business Manager
Jerry Arotsky (212) 463-6603
Facsimile: (212) 463-6653

Contracts Coordinator
Jeffrey Rothstein (212) 463-6608

Production Manager
Daniel Coakley (212) 463-6545
Facsimile: (212) 463-6560

Promotion Manager
Dorian Torregrossa

Research Manager Angela Venturino

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Reprints Carol Bien (708) 390-2235

Circulation Manager
Carla Keller (303) 398-7623

Subscriptions/Back Issues
(800) 637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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BUSINESSOUTLOOK**BUSINESS OUTLOOK**BUSINESSOUTLOOKBUSI

Economic Rebound Indicated for Mid-1991

The third and final revision to the GNP figure for fourth-quarter 1990 shows the economy declined to 0.4% from the previous quarter, to end the year 1% above 1989. The weakest sector during the fourth quarter was consumer spending: durables, nondurables, and housing. Nonresidential fixed investment, net exports, and government spending all added to economic growth during that period.

Early-1991 GNP will likely show different trends, as there have been some encouraging signs of a turnaround from housing and consumer confidence data. As a result, consumer spending should bottom out, and may show modest improvement.

A pessimistic business outlook will continue to show up in spending reductions for business fixed investment. A rising dollar and weaker foreign economies will slow export growth, while lower-priced imports will stem the import losses of the fourth quarter. Finally, with the Middle East conflict over, lower defense expenditures will curtail the growth in government spending.

Inventory adjustments remain the biggest question mark for the economy. Even with a downturn during the fourth quarter, business inventories dropped substantially. While there is no evidence of planned inventory increases, a weaker-than-expected industrial section may have produced some involuntary increases.

Cahners Economics forecasts an economic rebound beginning in the second half of this year. GNP should post growth of 0.6% by the end of 1991, with business investment in equipment and exports leading the growth. Declining income levels and rising unemployment rates will keep the consumer sector from recovering until well into 1992.

XGRAPHICARTSINDEX**GRAPHIC ARTS INDEX**GRAPHICARTSIND

Industrial production data shows growth in the printing and publishing industry, outpacing most other sectors, posting a 3.1% rise in 1990. In comparison, output for the whole industrial sector increased a slight 1%. In 1990, newspaper production fell for the second year in a row. Production of periodicals and books gained 5.7%, and job printing increased 3.8% last year. A look ahead into 1991 has these trends continuing, albeit at a slowing pace. After bottoming out in the middle of 1991, printing and publishing production is expected to rise 3.1% in 1991, and 4.4% in 1992.

GENERAL ACTIVITY INDICATORS

				Annual Percent Change			
General Economic Indicators	**Q4/89**	**Q3/90**	**Q4/90**	**1989**	**1990**	**1991**	**1992**
Gross National Product (1)	4133.2	4170.0	4153.4	2.5	1.0	0.6	3.2
Consumer Spending (1)	2669.9	2696.8	2673.6	1.9	0.9	0.3	3.0
Business Investment (1)	508.4	519.3	519.4	3.9	1.8	0.8	3.6
Industrial Production (2)	108.1	110.5	108.5	2.6	1.0	-1.0	4.6
Prime Rate (3)	10.5	10.0	10.0	10.9*	10.0*	8.7*	9.5*
Consumer Price Index (4)	125.9	131.6	133.7	4.8	5.4	4.5	4.2
	Jan 90	**Dec 90**	**Jan 90**	**1989**	**1990**	**1991**	**1992**
Industrial Production (2)							
printing & publishing	110.7	113.3	112.9	4.8	3.1	3.1	4.4
newspapers	103.4	97.5	97.7	-0.6	-0.8	0.5	2.1
periodicals, books, cards	120.8	127.8	125.9	10.4	5.7	4.8	5.2
job printing	110.6	114.0	114.3	4.3	3.8	4.5	5.2

(1) seasonally adjusted annual rate: billions of 1982 dollars. (2) index: 1987 = 100. (3) average percent. (4) index: 1982 = 100
na = data not available for publication. * = annual average data source: U.S. Department of Commerce, Federal Reserve Board
All forecasts: Cahners Economics

Magazines Taste Transition

Magazine printers' challenge: to produce high-quality product at bargain-basement rates.

By Michael Karol
Managing Editor

The word magazine comes from the Arabic *makhzan* (by way of French and Italian), meaning storehouse. And that's perfect, in a way, since magazines are indeed a warehouse of ideas, a collection of words and images that somehow (in the most successful ones) come together to create a personality.

The medium "magazine" is changing, thanks to a shrinking advertising pool and competition from other media, like direct mail. Magazine printers face the stiffest challenge: how to continue producing high-quality product at bargain-basement rates (which, of course, is what all publishers want).

But don't count magazines out just yet. According to the Magazine Publishers of America (MPA) 1990-91 *Magazine Handbook*, as of 1989, there were 11,556 magazines being published in the U.S., generating a $15 billion publishing industry. Five hundred magazines were being launched *every year*.

It all began, reports the MPA, in January of 1741, when two Philadelphia colonists, Benjamin Franklin and Andrew Bradford, got their respective magazines (*General Magazine* and *American Magazine*) published within three days of each other. Bradford was first, but within six months both were out of business. To anyone working in the industry today, it's a familiar tale.

In the 10-year period ending with 1989, MPA notes that magazine ad revenues more than doubled, from $2.7 billion to $6.6 billion. Recently, however, with a recession in full swing (and ads traditionally one of the first casualties), what's been making news is an astounding number of mergers, consolidations, and failures. In the past year alone, such heavily-promoted and touted consumer titles as *Egg, Fame, Wig Wag, Men's Life, Memories, 7 Days*, and *New England Monthly* have all disappeared.

Most of these failures are blamed on the advertising climate (tough and getting tougher); the recent postal increase (a 22% Second Class postal hike striking dread in the hearts of all publishers, while a 25% increase in direct-mail costs making new subscription generation ever-more prohibitive); changing demographics in America (aging Baby Boomers, and Black and Spanish minorities constituting the greatest growth potential in the next decade); and increasing competition from outdoor advertising, radio and TV.

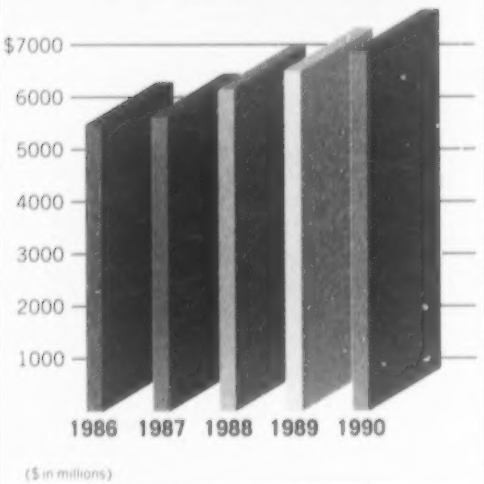
Still, in a recent survey of 750 advertising and marketing executives by Myers Marketing and Research, Parsippany, N.J., respondents indicated they believed "core" magazines (in industry parlance: the top publications in various categories) will thrive. MPA research shows steady growth in magazine circulation (32% in the period 1980-89, faster than the U.S. adult—18-plus—population, which grew at a mere 17%). New technologies are developing faster than we can print 'em.

Printers are doing their best to satisfy their publishing clients while making a profit. Though everyone agrees 1991 will not be an easy year, no one's throwing in the towel, either.

Magazine Week asked execu-

Magazines

1990 Print Sales: $6.848 (millions)



Major Printers—Magazines

Rank	Company	Sales in millions.
1	R.R. Donnelley & Sons Co.	685.0
2	World Color Press Inc.	535.0
3	Quebecor	405.0
4	Quad/Graphics Inc.	250.0
5	Ringier America Inc.	225.0
6	Brown Printing Company	200.0
7	Arcata Graphics Co.	187.0
8	Sullivan Graphics Inc.	185.0
9	American Signature	155.0
10	Mack Printing Co.	91.0

**Note: All sales are for 1990, courtesy PrintMarkets* Source: PrintMarkets

Chart by Annabelle Carter

- More money from circulation revenues. Joe Hanson, former chairman and CEO of Hanson Publishing (*Folio:* magazine, among others) believes that, "Circulation revenues will continue to grow in importance, and will substantially overshadow ad revenue growth in the years to come." Leading up to this, he says, is the current "opportunity for publishers to customize magazines to match the individual interests of their readers."

The MPA agrees, adding that by 1988, consumer magazine circulation revenues (52%) had outstripped ad revenues (48%), a "significant shift toward more reliance on readers as a source of revenue."

- Alternative delivery services are on the minds of many in magazine publishing. In attempting to do without the U.S. Postal Service, publishers and printers (who often absorb mailing costs) are investigating other ways of distributing magazines to their readers.
- Look for more magazines to fold, as ad revenues from certain product categories disappear. Printing industry consultant (and GAM marketing columnist) Dick Gorelick notes that, "Every year, Congress comes closer to legislating prohibition of print and broadcast advertising of tobacco and alcohol products.

"However it's accomplished, de facto prohibition of advertising of 'sin' products appears inevitable. The U.S. Leadership Council on Advertising predicts the result will be the demise of almost 250 publications."

- Expect continued color use in magazines. A recent survey in *Magazine Design & Production* revealed more than 46% of consumer titles and 32% of trade titles currently put out at least 40% four-color editorial. And the same survey showed four times as many publishers plan to increase use of color as decrease use of color.
- Part of the current "transitional" period in magazine publishing is a growing blur between media, as electronic and digital technology become more commonplace, more sophisticated and more accessible. The key word is *interactive*. Compact discs which can store still photo and video information are now available, making the advent of the "video magazine" a reality.

A brave new world, then, might mean a "magazine" you can pop into a CD player, fast-forwarding through the images and text that don't interest you.

The MPA puts forth the notion of "an ad that addresses you by name—not just by inkjet printing, by *voice*". An intriguing notion, but one that might not be necessary, as magazines become more selective about whose hands they reach.

World Color Press' May comments, "There's lots of discussion of *target marketing*, and sending selective editorial (and advertising) to subscribers. Magazines will be much more demographically-ori-ented, with many splits in the run. The copy *you* get at home will be different from the copy *I* get, because we have different interests. In fact, some magazines are already like that."

This may be coming none too soon; if publications don't deliver the goods (that is, targeted, buying readers) advertisers will continue to switch dollars to broadcast, direct marketing, and other ways of reaching the consumer they find more effective.

Quebecor's Kula agrees that, for the moment, "It remains a buyer's market in purchasing printing for magazine production. This applies a great deal of pressure on the printer's profitability. The situation won't change until the advertising climate improves, and available capacity diminishes. Like the magazine fallout we've seen, some printers will have difficulty weathering these times."

Still, 88% of the adult U.S. population (that's 156.3 million people, folks) reads one or more magazines during an average month. Why? They're tangible; we can flip through them, fold them anywhere to save our place, tear things out that intrigue us. They're personal; we see our society, ourselves (our tastes and points of view) and others reflected in them.

These are substantial dividends no computerized, electronic, or digital version can duplicate, or diminish. ▤

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The Little Region That Could

This is the territory they call the Heart of Dixie: Alabama, Kentucky, Mississippi, and Tennessee. In terms both of population and printing activity, it's the smallest region we've discussed so far in this year's series. The most recent GAM Plant Equipment Market Profile, for example, shows just under 2,000 plants of all types and sizes for the four states in the East South Central region, versus more than 8,000 for the Upper Midwest powerhouse directly to the north.

Size isn't everything, however. By every yardstick employed in these articles, the graphic arts industry in the East South Central region is one of the healthiest in the United States.

Before we get into the numbers, let's take a closer look at the region. It divides into two distinct tiers, Tennessee and Kentucky in the northern part, and Alabama and Mississippi in the southern. The northern two states have traditionally been more populous, more industrial, and more prosperous than their southern neighbors, and they still are today.

So it is heartening to be able to report that not only did printing activity (as measured by value of shipments) grow substantially throughout the region from 1989 to 1990, but the largest increases came in Alabama and Mississippi. By far, the largest increase was in Mississippi.

In fact, Mississippi's growth rate for the period, 8.5%, was more than a point higher than California's, which, even given the relative sizes of the economies involved, is startling. The whole region was up 7%, which may indicate that the economic revival called the New South is finally spreading westward from Georgia and the Carolinas.

KENTUCKY
TENNESSEE
MISSISSIPPI

Jean Wisenbaugh

Our ongoing survey of small to medium-sized commercial printers seems to bear this out. Almost 68% of those surveyed indicated a 1989-1990 increase, among the highest scores we have yet seen. More than half those reporting an increase were up over 10%, and a sizeable number (10.3%) had increases larger than 20%.

Turning to profitability, we find solid gains for 1990 over the previous year—fewer reporting a loss and more reporting profitability levels better than 5%. Capacity utilization is healthy compared to other regions. Not surprisingly, given all this, area printers are fairly optimistic. 1991 should be an excellent year for the East South Central.

Inside this detachable gatefold form we present a general industry profile for the four-state region, offering a close look at commercial printing, demographic data, and listings of leading printers in major markets, by sales. Data sources are given for each specific chart/table.

Reprints of this installation of Print Market Trends may be ordered from Carol Bien, Cahners Publishing, Reprint Department, 1350 E. Touhy Ave., Des Plaines, IL 60018.

By Peter Johnston
Special Projects Manager

Regional Overview

Commercial printing generates a total of over $4 billion in revenues annually in the four states of the East South Central region, making it a substantial contributor to the regional economy. Other important factors in this part of the country are chemicals, processed food, machinery, mining, and a large and highly varied agricultural sector. Business is growing, but it remains very competitive for most printers, in terms of profit margin and the time it takes to produce jobs. Dollar figures given throughout this report are unadjusted for inflation.

COMMERCIAL PRINTING

Value of Shipments

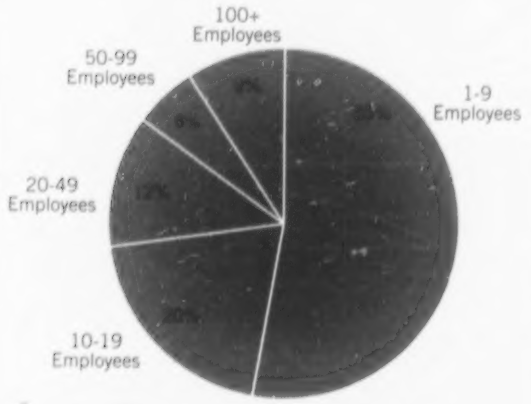
State	Sales, 1990 ($ million)	% of Region	Sales, 1989 ($ million)	% change (1989-1990)
Tennessee	$1,934	45.1%	$1,811	6.8%
Kentucky	1,180	27.5%	1,104	6.9%
Alabama	764	17.8%	713	7.2%
Mississippi	410	9.6%	378	8.5%
TOTAL	**$4,288**	**100%**	**$4,006**	**(avg.) 7.0%**

Source: PIA Economics Department

Printing Sites

State	Sites
Tennessee	651
Alabama	344
Kentucky	329
Mississippi	164
TOTAL	**1,488**

All Graphic Arts Plants, by Employee Count



Source: GAM 1990 Plant Equipment Market Profile

Charts and graphs by Lisa Hilgers

All Graphic Arts Plants, by Function

Function	# of Plants
Commercial	1,086
Newspaper (w/Commercial)	85
Newspaper (w/o Commercial)	97
Book & Pub	100
Business Forms	29
Converters	66
Noncommercial	287
Trade	107
Quick Printers	112

Source: GAM 1990 Plant Equipment Market Profile

DEMOGRAPHICS

Population

State	Population	Rank
Tennessee	4,803,000	16
Alabama	4,052,000	22
Kentucky	3,729,000	23
Mississippi	2,625,000	31
TOTAL	**15,209,000**	

Population Changes

State	Change (1980-86)	Net Migration
Tennessee	4.6%	56,000
Alabama	4.1%	8,000
Mississippi	4.1%	−27,000
Kentucky	1.9%	−56,000

Educational Attainment

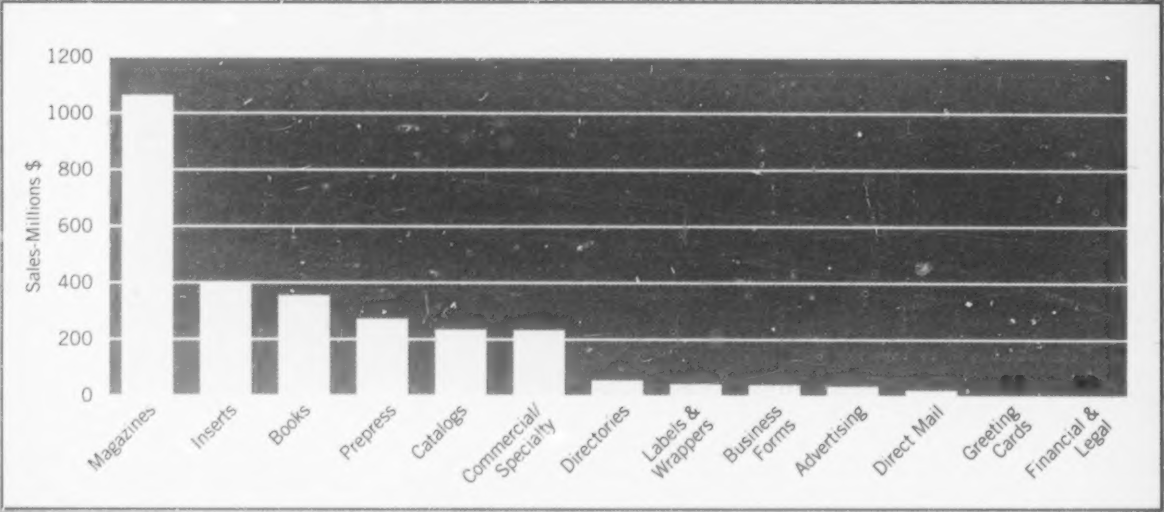
State	High School Graduates	College Graduates
U.S. Average	66.5%	16.2%
Alabama	56.5%	12.2%
Tennessee	56.2%	12.6%
Mississippi	54.8%	12.3%
Kentucky	53.1%	11.1%

Source: U.S. Department of Commerce, Bureau of the Census

Market Profile

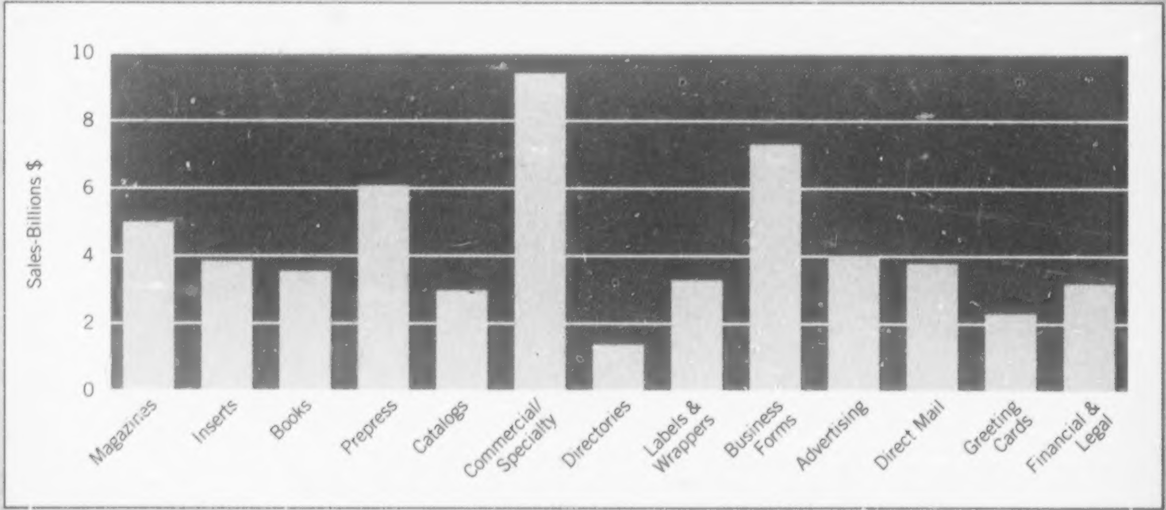
Ranking of Product Segments . . .

The presence of magazines, inserts, books, and prepress at the top of the market segments represented by major printers in the area can be partially accounted for by what is called (affectionately, nowadays) the carpetbagger effect. A number of very large, multiplant printers have located manufacturing capacity in this region to take advantage of the prevailing mild climate, low tax rates, inexpensive industrial real estate, and comparatively low labor costs.



. . . Compared to National Totals

These bar charts are presented in similar order to simplify comparison between segment concentration in the East South Central region and the U.S. as a whole. Note that financial & legal printing, which is concentrated in a small number of U.S. cities, does not appear as a category for this region. Business forms, advertising, and commercial/specialty printing play a proportionately much smaller role in the East South Central than they do nationally.



Leading Printers in Major Markets

COMPANY	SALES
MAGAZINE PRINTERS	**TOTAL 1065.3**
Sullivan Graphics, Inc., Brentwood, TN	180.0
Arcata Graphics Company, Nashville, TN	100.0
Maxwell Communications, Dickson, TN	90.0
R.R. Donnelley & Sons Company, Glasgow, KY	75.0
R.R. Donnelley & Sons Company, Gallatin, TN	65.0
R.R. Donnelley & Sons Company, Danville, KY	65.0
GBP Industries, Sylacauga, AL	50.0
Ringier America, Inc., Corinth, MS	45.0
World Color Press, Inc., Dyersburg, TN	45.0
American Signature Graphics, Olive Branch, MS	40.0
Maxwell Communications, Memphis, TN	30.0
GBP Industries, Sylacauga, AL	15.0

COMPANY	SALES
INSERT PRINTERS	**TOTAL 400.0**
Sullivan Graphics, Inc., Brentwood, TN	205.0
Shea Communications, Louisville, KY	60.0
R.R. Donnelley & Sons Company, Gallatin, TN	55.0
Standard Gravure Corporation, Louisville, KY	35.0

COMPANY	SALES
BOOK PRINTERS	**TOTAL 355.0**
Arcata Graphics Company, Kingsport, TN	179.0
Rand McNally & Company, Versailles, KY	60.0
Ringier America, Inc., Dresden, TN	57.5
Sullivan Graphics, Inc., Brentwood, TN	40.0
The Parthenon Press, Nashville, TN	15.0
Rich Printing Company, Inc., Nashville, TN	3.5

COMPANY	SALES
PREPRESS	**TOTAL 272.3**
Sullivan Graphics, Inc., Brentwood, TN	134.0
Nicholstone Book Bindery Inc., Nashville, TN	65.0
Magna Graphic Inc., Lexington, KY	17.6
Southern Gravure Service, Inc., Louisville, KY	15.0
Nashville Electragraphics Inc., Nashville, TN	14.7
Arcata Graphics Company, Nashville, TN	10.0
Arcata Graphics Company, Kingsport, TN	6.0
Hanson Graphics of Memphis, Memphis, TN	5.5
American Signature Graphics, Olive Branch, MS	3.0
Donihe Graphics, Inc., Kingsport, TN	1.5

COMPANY	SALES
CATALOG PRINTERS	**TOTAL 234.5**
Ringier America, Inc., Corinth, MS	47.0
R.R. Donnelley & Sons Company, Gallatin, TN	35.0
Brown Printing Company, Franklin, KY	35.0
American Signature Graphics, Olive Branch, MS	27.0
Shea Communications, Louisville, KY	17.0
R.R. Donnelley & Sons Company, Glasgow, KY	15.0
Arcata Graphics Company, Nashville, TN	12.0
Stevens Graphics, Inc., Birmingham, AL	10.0
Boardman Printing Company, Jackson, TN	8.5
Gateway Press, Inc., Louisville, KY	8.5

COMPANY	SALES
COMMERCIAL/SPECIALTY PRINTERS	**TOTAL 233.5**
Rand McNally & Company, Nashville, TN	75.0
CPS Corporation, Franklin, TN	40.0
Jostens Printing & Publishing, Clarksville, TN	25.0
Screen Art, Knoxville, TN	18.0
McQuiddy Printing, Nashville, TN	16.0
Rand McNally & Company, Versailles, KY	10.0
Ebsco Industries Inc., Birmingham, AL	9.5
Decor Gravure, Inc., Fairfield, AL	9.5
Mercury Printing Company, Inc., Memphis, TN	8.0
Lithograph Printing Co., Memphis, TN	5.5

COMPANY	SALES
DIRECTORY PRINTERS	**TOTAL 55.5**
Stevens Graphics, Inc., Birmingham, AL	30.5
Publishers Printing Company, Shepardsville, KY	25.0

COMPANY	SALES
LABEL PRINTERS	**TOTAL 43.0**
International Label Company, Clarksville, TN	17.5
Screen Graphics, Inc., Memphis, TN	14.0
MPI Label Systems, Nashville, TN	8.0
Courier Graphics, Louisville, KY	3.5

COMPANY	SALES
BUSINESS FORMS PRINTERS	**TOTAL 40.5**
Poser Business Forms, Inc., Fairhope, AL	37.0
Stry-Lenkoff Company, Louisville, KY	3.5

COMPANY	SALES
ADVERTISING PRINTERS	**TOTAL 35.3**
Ohio Valley Litho-Color, Florence, KY	14.0
Lithograph Printing Co., Memphis, TN	11.0
Ebsco Industries, Inc., Birmingham, AL	7.5

Selective listing, which indicates only the concentration of larger plants in larger segments, is from *Printmarkets*, Trade & Technology Press, Stamford, Conn., based on data provided by firms involved. Sales in millions.

How Printers Are Doing

Based on a survey of firms in the region, conducted by Cahners Publishing

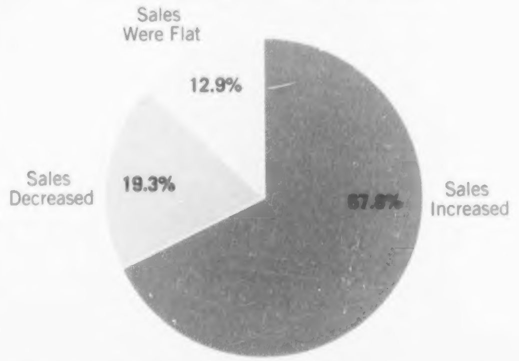
Profile of Respondents

Commercial printers in the East South Central region responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. The following information is as reported by survey respondents; 1990 gross sales were estimated.

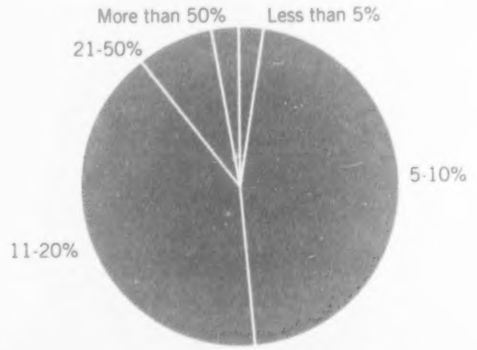
Gross Sales in 1990	
Less than $500,000	12.9%
$500,000-749,999	27.4%
$750,000-999,999	9.7%
$1 million-2,499,999	19.4%
$2,500,000-4,999,999	12.9%
$5,000,000-9,999,999	16.1%
$10 million or more	1.6%

# of Employees	
1-4	4.8%
5-9	11.1%
10-19	23.8%
20-49	31.8%
50-99	20.6%
100+	7.9%

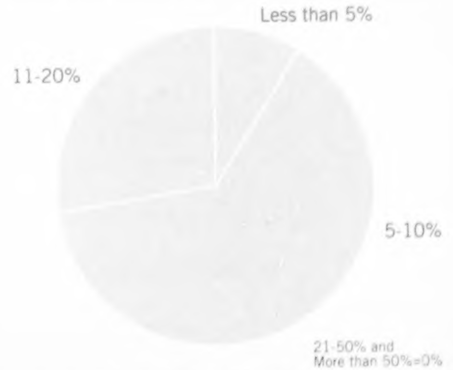
How Sales Changed, 1989 to 1990



If Sales Increased, How Large Was Increase?

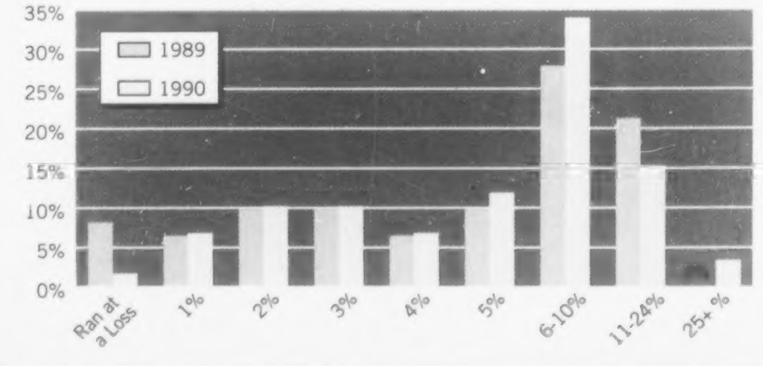


If Sales Decreased, How Large Was Decrease?

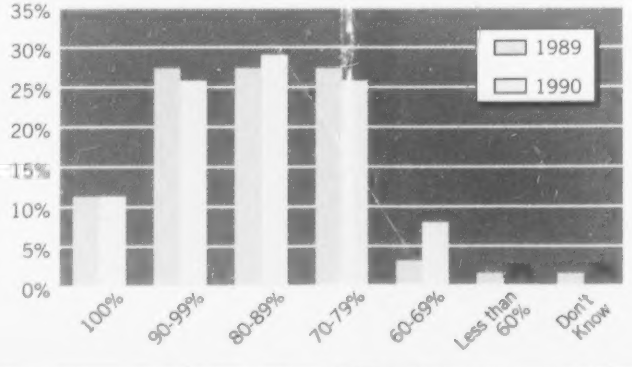


PROFITABILITY & CAPACITY

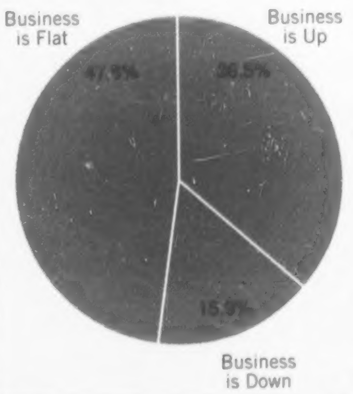
Profit as a percentage of gross sales



Operating percentage of plant capacity



Perception Index



Comments by Printers

- The first half of the year was slow; the second half has been remarkably better.
- In Kentucky and Tennessee, service and color are growth areas.
- Production capacity outweighs the market; we go outside our area for work.
- Our business is growing. Overall the region looks very stable.
- We are pleased with the growth in our small area.
- Our growth is created by public relations, plus quality, service and competitive pricing.

A Pulp Market Portrait

The following is excerpted from a speech given by Ronald J. Slinn, vice president of the Pulp, Materials & Technology Group of the American Paper Institute at its recent 1991 Open Annual Meeting.

> *Much of what worries the producer (i.e., decline in demand for chemical grades of market pulp) is due to the actions of the consumer.*

The pulp producer has been feeling quite lonely lately, particularly since mid-1989, when global demand for the *chemical* substance he traditionally peddles—paper grade market wood pulp—dried up considerably.

That annual demand peaked in 1988 at 26.7 million tons, but then fell by 430,000 tons in 1989, and a further one million tons last year, a two-year drop of 5%. This decline may have bottomed out in the first two months of 1991. Another of the producer's problems is the recent appearance on the market pulp street of significantly-increased supplies of a competing substance, manufactured by a relatively new *mechanical* process, claimed to be more environmentally friendly by using hydrogen peroxide rather than elemental chlorine to bleach it.

Plans for further expansions of both chemical and mechanical market pulp capacity beyond 1992, into the mid-1990s, could really test the producer's patience. Looking back over the last decade, we can see that, for chemical grades, with the exceptions of 1982 and last year, producers kept only just in front of global demand most of the time; the ratio of demand to supply ranged between 90% and 98%.

However, the highly-profitable climate generated by favorable market conditions toward the end of the 1980s has stimulated a surge of interest in the pulp business from both traditional and entirely new vendors. After analyzing the evidence, we forecast growth in chemical market pulp capacity averaging 3.9% per year during the first half of the 1990s, contrasting with a 2.7% annual rate over the 1980s.

The outlook for mechanical grades in the next half-decade is even more dramatic. Though the ratio between global demand and supply of mechanical market pulps has historically been somewhat less favorable for producers than that of chemical grades (with the ratio of demand to PMC above 90% in only two of the years since 1980), the projected annual rate of growth in practical maximum capacity will accelerate from 3.8% during the 1980s to average 6.1% per year from 1990-1995.

To add further to producers' concerns, the street is signalling a rapidly growing demand for yet another form of market pulp: that made from paper recovered from the solid waste stream and which, when blended with uncut virgin fiber, yields a product bearing the highly desired label *recycled* (see chart).

U.S. Recovered (Waste) Paper Utilization Rates* By Major Grade

	1989	1995
Newsprint –	24.6%	36.5%
Printing/writing	6.3	7.0
Packaging/converting	3.7	5.2
Tissue	49.0	49.4
Paperboard	35.6	43.0
Total	**25.4**	**33.1**

*Recovered paper consumption as a % of production.
Source: API & Franklin Associates

Much of what worries the producer (i.e., decline in global demand for chemical grades of market pulp) is due to the actions of the consumer. Some of the lost demand was due to a rundown in consumers' inventories (perhaps accounting for 200,000 tons); but more of the decline was due to the sharp drop in demand from the People's Republic of China (PRC), with the withdrawal of foreign finance following the Tianenmen Square episode in June 1989 (520,000 tons in 1987; in 1990, a little more than half the level of shipments three years earlier).

Almost simultaneously, the world's third largest pulp market, Japan, began to crank up previously inactive domestic integrated and market pulp capacity to offset significantly reduced purchases of imported pulp. During the mid-1980s people said the then relatively strong yen made it more attractive for Japan to buy pulp than make it at home. That state of affairs was subsequently reversed. Recent re-strengthening of the yen and an improved credit climate in the PRC could lead to improved condition for producers.

On the home front (where the level of U.S. consumers' purchased pulp inventories were at around 24 days of consumption as of November 1990, the lowest in eight years), consumers might be justifiably asking, "Are there any threats to the apparently more-than-adequate supplies likely to be available in this global market?"

- One could come from labor contracts expiring April 1991 in British Columbia, Canada, with 13% of the world's chemical and 17% of its mechanical market pulp capacities.
- The craving for market pulp made from recovered (waste) paper referred to earlier could cause a modest structural shift that would add unexpectedly to domestic market pulp supplies; it will inevitably displace an equivalent quantity of existing integrated virgin pulp capacity which, if drying facilities are avilable, will become a potential source of additional market pulp.
- The economy, government regulators, and the strength of the U.S. dollar overseas, all are factors affecting pulp supply and demand.

Though it's unrealistic to expect the global pulp market neighborhood to be entirely free of disturbances, it could well be rewarded [if it can begin to] control potentially negative trends. ⊟

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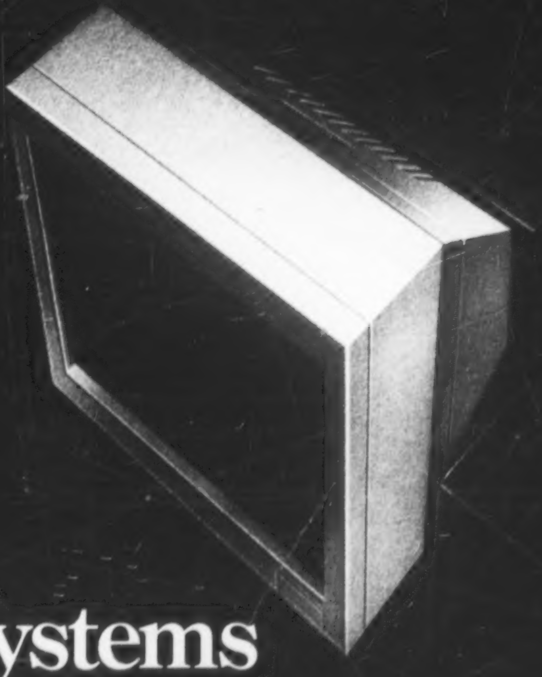

Hybrid Emerges

Mid-Range Systems Seek New Color Business

Sizing Up the Prepress Market • *Desktop-to-CEPS Gateways*

• *Quality Control for Small Shops*

VOLUME 63, NUMBER 6

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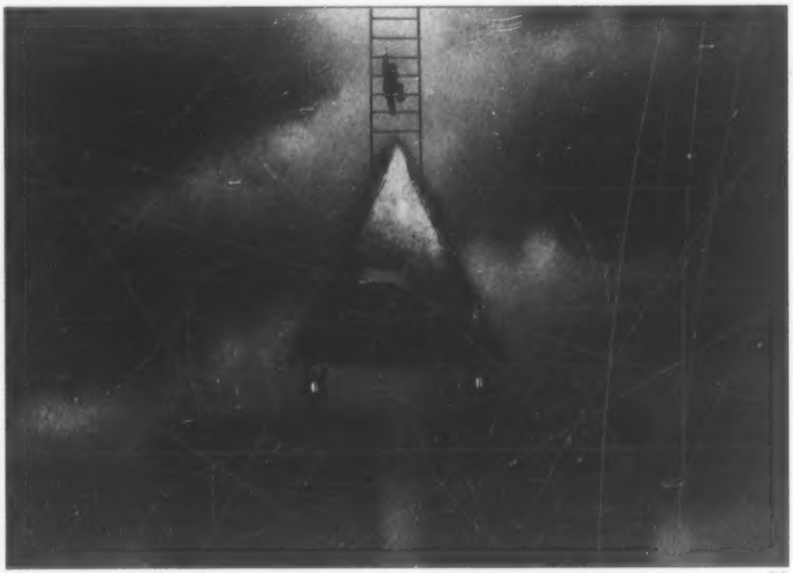

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Associate Editors Earl Wilken,
Lisa Cross

Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Jeff Rothstein

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager
Richard Negri (212) 463-6827

Business Manager
Jerry Arotsky (212) 463-6603
Facsimile: (212) 463-6653

Contracts Coordinator
Jeffrey Rothstein (212) 463-6608

Production Manager
Daniel Coakley (212) 463-6545
Facsimile: (212) 463-6560

Promotion Manager
Dorian Torregrossa

Research Manager Angela Venturino

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Reprints Carol Bien (708) 390-2235

Circulation Manager
Carla Keller (303) 398-7623

Subscriptions/Back Issues
(800) 637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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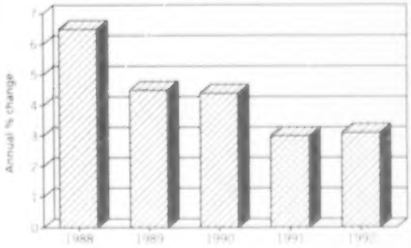
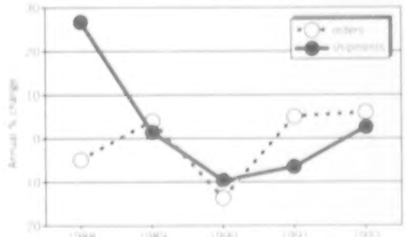
NPES Shows Shipment Data

Printing Machinery



Graphic Arts Supplies Shipments



New orders for graphic arts machinery dropped in the fourth quarter of 1990, bringing the year-end total 13.7% below the year before. Given the current economic recession and, correspondingly, the low level of business confidence, it is unlikely that machinery orders will increase substantially in the near future. Printers will postpone their investment decisions until the first signs of an upturn. After slowing through most of 1991, new orders for graphic arts equipment should still post a 5.1% increase by year-end. Equipment shipment trends tend to follow orders by three-to-four quarters. According to the latest survey from the National Printing Equipment and Supply Association, shipments dropped 9.7%, to a total of $2.62 billion. Total shipments will remain sluggish and decrease another 6.5% in 1991, to $2.45 billion. In 1992, shipments are expected to recover 2.6%, to just over $2.5 billion.

NPES data also show that, in the fourth quarter of 1990, graphic arts supplies shipments stood 3.8% above the same period the year before. This boost pushed the year-end total to $1.83 billion, 4.4% above the 1989 level. Given the general inflationary trends in 1990, it is safe to assume that much of this gain came from higher prices, not more unit sales. Shipments of supplies are much less volatile than shipments of machinery. While printers can and will delay machinery investment decisions during times of economic hardship, they continue to purchase those supplies which are absolutely necessary for day-to-day business activity. Still, supplies are not completely immune from the effects of an economic recession. Supplies shipments are expected to increase a slower 3% in 1991 and 3.1% in 1992, totaling $1.88 billion and $1.94 billion, respectively.

NDEXGRAPHICARTSINDEX**GRAPHIC ARTS INDEX**GRAPHICARTSIND

This month's datatable has been revised slightly to focus on employment, machinery, and supplies data. In March 1991, there were 28,000 fewer jobs in the printing and publishing industry than in March 1990. The commercial printing sector, which employs 35% of the workers in this industry, lost 10,500 jobs during this 12-month period. Average hourly wages continued to grow, albeit at a slower pace than in the past few years. After solid 3.4% increases in 1989 and 1990, printing and publishing industry wages are headed for a 2.4% rise in 1991. Commercial printing wages should post a 2.5% rise, following increases of 3.3% in 1989 and 3.5% in 1990.

SUPPLY INDICATORS

				Annual Percent Change			
	Mar 90	**Feb 91**	**Mar 91**	**1989**	**1990**	**1991**	**1992**
Employment (1)							
Printing & publishing	1579.7	1557.0	1551.7	1.0	0.9	-0.1	1.8
Commercial printing	552.7	542.7	542.2	0.9	0.9	-0.3	1.6
Productivity (2)							
Printing & publishing	101.0	103.2	102.7	5.0	2.2	0.6	2.8
Average Hourly Earnings (3)							
Printing & publishing	11.17	11.37	11.38	3.4	3.4	2.4	3.3
Commercial printing	11.46	11.65	11.68	3.3	3.5	2.5	3.5
	Q4/89	**Q3/90**	**Q4/90**	**1989**	**1990**	**1991**	**1992**
Graphic Arts Machinery (4)							
New orders	163.9	114.6	134.5	1.0	-13.7	5.1	6.0
Shipments	146.0	137.7	136.3	1.5	-9.7	-6.5	2.6
Graphic Arts Supplies (4)							
Shipments	150.8	151.6	156.5	4.5	4.4	3.0	3.1

(1) Thousands of employees, U.S. Dept. of Labor. (2) Index 1977 = 100, Cahners Economics. (3) Dollars per hour, U.S. Dept. of Labor. (4) Index 1986 = 100, National Printing Equipment and Supplies Association.
All forecasts by Cahners Economics.

Sizing Up the Prepress Segment

Volatile economic conditions held sway for the industry last year. What lies ahead?

Prepress sales in 1990 may not have equaled or surpassed the goals set in strategic planning sessions, but they reflected a number of ongoing developments.

Acquisitions, volatile conditions within the advertising community, and the gloomy economic climate were just some of the changes that had an impact on the prepress segment last year.

What will sales be in 1991, and the years to come?

To answer that question the reader is referred to the April 29, 1991 issue of the *Seybold Report on Publishing Systems.* Quoting from page 23 of that issue, which reports on the March 1991 seminar in Boston on Professional Publishing, 12 points are discussed about the state of the prepress industry in 1995.

"Here are the main points: use of color will grow quickly; color will become cheaper; printing color on demand will become common; rapid technological progress will help move things; designers will take on more production responsibility; color production will be simplified, fewer skills will be needed; training and support will be key issues; consultants and VARs [value added resellers] will play a major role; more consolidation of vendors will occur; software will become more modular; standards will increase in importance; and workgroups will be supported."

By Earl Wilken
Associate Editor

The panel putting forth this information included: Yoav Chelouche of Scitex America, Bruce Harrison from Optronics, Ranjit Mulgaonkar of Aldus, and Lee Silverman from Agfa Compugraphic.

As to actual prepress sales data, let's examine U.S. prepress sales from 1986 through 1990.

Compilation of prepress sales volume indicates that for the year 1990 the prepress trade houses, along with printers who have full-service facilities, did $5.367 billion, contrasted with $5.054 billion in 1989. Thus, growth in 1990 versus 1989 was $313 million.

Comparing the top 10 printers and prepress houses in sales for 1990 shows $654.1 million, contrasted with $593.4 million in the year 1989. Overall growth for the top 10 companies in prepress sales for the year 1990 comes to $60.7 million.

The data come from a questionnaire mailed to printers and prepress companies by Trade & Technology Press, Stamford, Conn., who publish the annual *PrintMarkets* report. Imaging service bureaus, PostScript service bureaus, traditional service bureaus, and quick printers were *not* selected this year for prepress sales data.

Readers should acknowledge that sales data on prepress activities is not only difficult to sort out but also infrequently published. In addition, prepress sales figures are not available from organizations and operations where prepress sales are bundled with other charges. For example, a full-service printer that produces a catalog may bill the entire job (prepress and printing) at one price without indicating separately the charges for prepress services.

As a further caution to the reader, when examining the integrity and extent of supplied data—from whatever source—readers must always heed the ca-

Peter Neumann

veats of researchers and editors. For example, at the request of this publication, Trade & Technology Press has separated trade services sales data from prepress services sales for the years 1986 through 1990. The categories in trade services sales—cutting and finishing, and binding—are to now appear in a separate category, finishing services.

So this year the charts (1986-1990) will only report the gross sales of prepress services. It is also important to remember that not all printers and prepress houses report financial operations on a calendar year basis.

Any comparison with earlier data appearing in *GAM's* Print Market Trends must take into consideration all of these variables. It is unfortunate that data on prepress sales from specific sectors of business and non-business organizations are not available.

Typical Products

Composition and Imaging
Color Separations
Electronic Prepress
Typesetting
Photo Engraving
Plate Making

Typical Users

Commercial Printers
Advertising Agencies
Publishers
In-Plant Shops

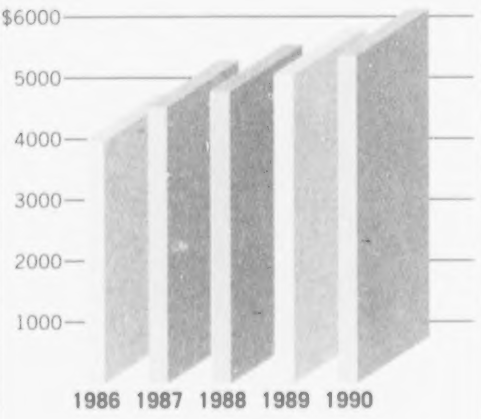
To better comprehend the prepress data, it is necessary to review the services and products offered to clients by printers and prepress companies. The services and products for this report on prepress sales include composition and imaging, color separations, electronic prepress services, typesetting, photo engraving, and platemaking. Although proofing is not listed separately, it falls either under composition and imaging, or color separations.

As we go to press with this report, Trade & Technology Press is nearing completion of all segments of 1990 data for its *PrintMarkets* report. Since data in the prepress category are only available on the top 10 firms, analyzing the prepress sales figures should shed some light on growth patterns but not necessarily on how they were achieved.

In the 1989 report on the top

Prepress Operations

1990 Print Sales: $5,367 (millions)



($ in millions)

Major Prepress Operations

Rank	Company	Sales in millions*
1	Wace USA (Techtron Imaging)	$145.0
2	Applied Graphics	110.0
3	Sullivan Graphics	94.0
4	Devon Group	76.6
5	Schawk Inc.	58.0
6	Enteron Group	47.0
7	Lanman Companies	34.0
8	Color Associates	30.0
9	Potomac Graphic Industries	30.0
10	Volt Information Sciences	29.5

*Note: Preliminary Ranking

Source: PrintMarkets

Chart by Annabelle Carter

10 printers and prepress shops, sales data included cutting and finishing, and binding. For the sake of comparison to 1990 revised data as shown in the accompanying listing, here's the ranking of the top 10 operations in the 1989 report:

1. Sullivan Graphics;
2. Techtron Imaging;
3. Devon Group;
4. Applied Graphics;
5. Schawk Inc.;
6. Revere Graphic;
7. Volt Information;
8. Parkway USA;
9. R.R. Donnelley & Sons; and
10. Lanman Companies.

When analyzing the shift in rankings, it is obvious that Sullivan Graphics, number one in 1989 with $134 million, went to a third position in 1990, because it had either $40 million in bindery, cutting, and finishing sales (which were transferred to the new category), a flat year, a drop in revenue, or some combination.

Wace USA moved from the second position in 1989 to the first in 1990 as a result of increased sales and the inclusion of revenue from the acquisition of Parkway USA. Parkway was ranked eighth in 1989 with $31.5 million.

Although the Devon Group was ranked number three in 1989 with sales of $76.4 million, its 1990 ranking is number four, with $76.6 million in sales.

In both the 1989 and 1990 rankings, Schawk Inc. stays at the fifth position with sales of $55 million in 1989 and $58 million in 1990.

A similar situation to that of Schawk applies to the Enteron Group (which includes Revere) in that it was listed as number six in 1989 and 1990. Sales in 1989 were $38.5 million, with 1990 figures showing an increase to $47 million.

Volt Information Sciences posted sales of $33 million in 1989 at number seven. In 1990, the Lanman Companies came in with sales of $34 million and took over the number seven spot, up from number 10.

Color Associates, with 1990 sales of $30 million, moved into the number eight position, replacing Parkway USA, ranked eighth in 1989. Color Associates was ranked number 15 in 1989.

Holding down the number nine spot in 1990 is Potomac Graphic Industries with $30 million in sales. Potomac was ranked number 11 in 1989.

In the number 10 position for 1990 is Volt Information, with $29.5 million in sales.

To stand back from the prepress sales data just presented and analyze the shift in sales rankings is not only difficult but also precarious, because one may assume certain trends or results based on insufficient information or slanted information.

One question that comes to mind: do all respondents understate sales figures to protect proprietary financial results? Another question concerns how companies categorize prepress work and pass these charges on to clients. Undoubtedly there are other aspects that enter into the prepress sales data received from printers and prepress trade houses.

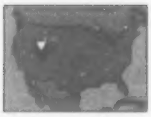
Perhaps the most troublesome element in presenting prepress sales data for 1990 is the lack of sales figures from current imaging centers, PostScript service bureaus, traditional service bureaus, and quick printers. Another important category relating to prepress sales is the graphic design firm and some of the more prominent graphic designers.

Keep in mind that none of the above comments, and especially those concerning the rankings, addressed the U.S. economic climate today and in the future. Management in printing firms with prepress capabilities as well as managers of prepress houses must look at those trends, weak for the moment, but definitely coming into play, to exert an impact on prepress services.

Reference is made to declining advertising in magazines, newspapers, catalogs, etc. Coupled with this decline is the growing importance of the rarely-understood force of multimedia products, systems, and services. Of all the trends to examine, managers must not ignore the threat as well as the opportunities of this new medium—multimedia. ⊟

graphic arts monthly

Sales, Profits Are Sky-High

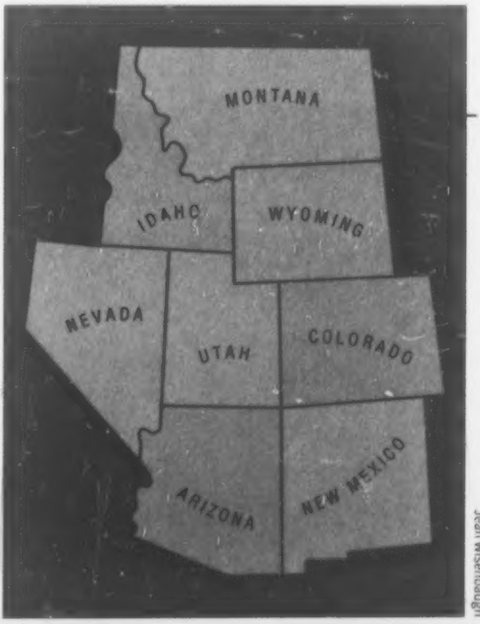


About 10 years ago, a team of economic/demographic modelers decided to redraw the regions of the United States, assigning them descriptive names: the Pacific Northwest (including northern California) was called Ecotopia, the deep South was called Dixie, the upper Midwest was called the Rust Belt, and so on.

The name they assigned the Mountain region, the subject of this month's report, was the Empty Quarter.

Which isn't entirely fair; only part of it is empty. Montana and Wyoming have fewer than a million people each, and Idaho and Nevada are only slightly larger. (Nevada's numbers will change when new census data become available, primarily because of the emergence of Las Vegas as the first boom town of the 1990s.) Both Colorado and Arizona have good-sized populations concentrated primarily in cities. (Anybody who's ever tried to get in or out of Denver at five in the afternoon knows the wide open spaces are long gone.) And, considering that half the state's population lives in greater Salt Lake City, even Utah could technically claim to be urban.

By Peter Johnston
Special Projects Manager



Jean Wisenbaugh

The fact remains, however, that the Mountain region has approximately the same population as New England in an area 13½ times larger. Commercial printing is dependent not just on population but on the concentration of businesses, which is directly relative to the degree of urbanization. This is reflected in the Mountain region's printing activity: it may have the same number of people as New England, but it has only half the volume of printing.

On the other hand, the printing industry in these eight states (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming), while relatively small and scattered, seems to be quite robust. Commercial printing sales for the region were up 8.3% for 1990 compared to 1989, the largest increase of any region in the country. Arizona was up a startling 9.1%, the biggest increase of any reasonably populous state. Assuming its problems with climate and water can be solved, demographers expect Arizona to become one of the so-called "super states" in the fairly near future.

Individual commercial printers responding to our research questionnaire showed, not surprisingly, that nearly 60% had an increase in sales for 1990 over 1989. The increases were substantial as well as widespread; 28% had gains of over 10%, and another 28% had gains of over 20%. Furthermore, these printers are profitable; profitability for Mountain printers increased significantly, in fact, with 59.1% showing margins of 5% or more for 1989, up to 80% in 1990. Also shown are the extent of sales changes from 1989 to 1990, profitability and capacity comparisons, and a business perception index.

Reprints may be ordered from Carol Bien, Cahners Publishing, Reprint Department, 1350 E. Touhy Ave., Des Plaines, IL 60018.

Regional Overview

Commercial printing contributes nearly $3 billion annually to the economy of the Mountain region, making it an important source of employment opportunity, capital generation, and tax revenue. Of the region's 1,733 printing sites (re PIA: commercial printers), 1,105 are concentrated in Colorado and Arizona, the area's economic heavyweights. Revenue figures in the charts are in constant dollars, not adjusted for inflation.

COMMERCIAL PRINTING

Value of Shipments

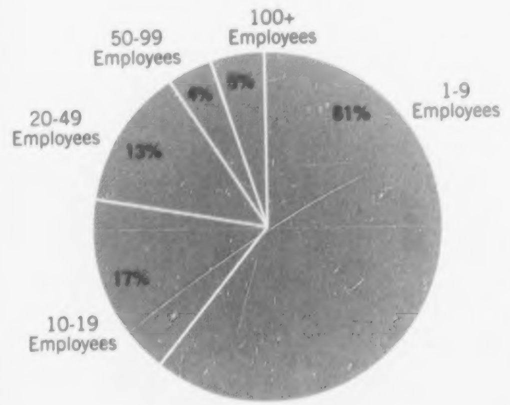
State	Sales, 1990 ($ million)	% of Region	Sales, 1989 ($ million)	% change (1989-1990)
Colorado	$ 828	30.1%	$ 762	8.7%
Arizona	779	28.3%	714	9.1%
Utah	438	15.9%	408	7.4%
Nevada	264	9.6%	243	8.6%
Idaho	187	6.8%	174	7.5%
New Mexico	146	5.3%	137	6.6%
Montana	78	2.8%	73	6.8%
Wyoming	34	1.2%	31	9.7%
TOTAL	$2,754	100%	$2,542	8.3%

Printing Sites

State	Sites
Colorado	651
Arizona	454
Utah	193
New Mexico	128
Nevada	100
Idaho	92
Montana	73
Wyoming	42
TOTAL	1,733

Source: PIA Economics Department

All Graphic Arts Plants, by Employee Count



Source: GAM 1990 Plant Equipment Market Profile

Charts and graphs by Lisa Hilgers

All Graphic Arts Plants, by Function

Function	# of Plants
Commercial	1,186
Newspaper (w/Commercial)	86
Newspaper (w/o Commercial)	104
Book & Pub	120
Business Forms	29
Converters	31
Noncommercial	325
Trade	144
Quick Printers	232

Source: GAM 1990 Plant Equipment Market Profile

DEMOGRAPHICS

The Mountain populace is small but well educated. The high incidence of college graduates probably reflects the tendency for people to migrate to this area as adults, either as retirees (especially Arizona) or lovers of the outdoors.

Population and Population Changes

State	Population	Rank	Change (1980-86)
Arizona	3,279,000	26	22.1%
Colorado	3,267,000	27	20.3%
Utah	1,665,000	35	14.0%
New Mexico	1,479,000	37	13.5%
Idaho	1,002,000	41	13.1%
Nevada	963,000	43	8.0%
Montana	819,000	44	6.2%
Wyoming	507,000	50	4.1%
TOTAL	12,981,000		

Educational Attainment

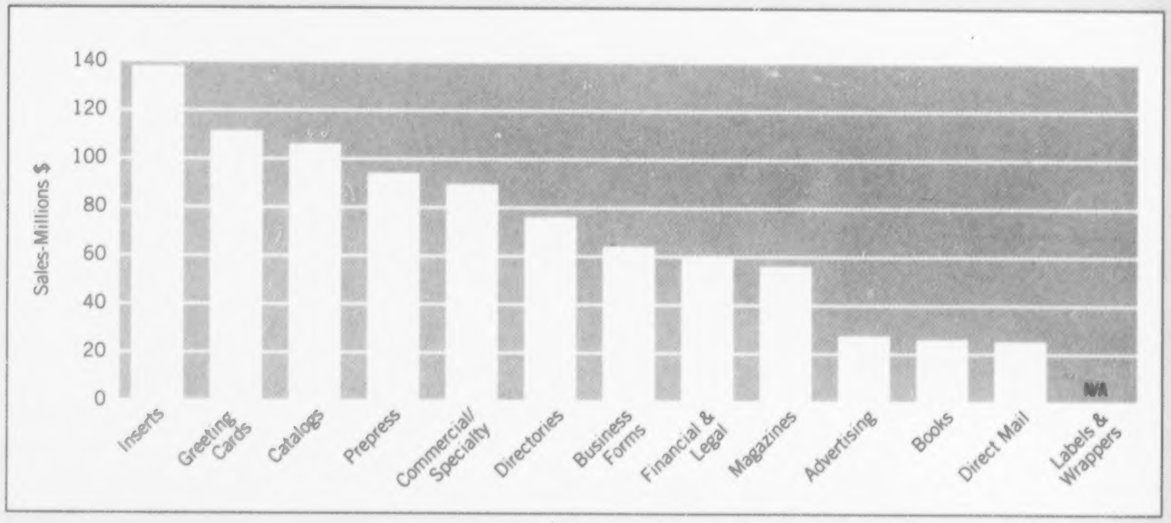
State	High School Graduates	College Graduates
U.S. Average	66.5%	16.2%
Utah	80.0%	19.9%
Colorado	78.6%	23.0%
Wyoming	77.9%	17.2%
Nevada	75.5%	14.4%
Montana	74.4%	17.5%
Idaho	73.7%	15.8%
Arizona	72.4%	17.4%
New Mexico	68.9%	17.6%

Source: U.S. Dept. of Commerce; Bureau of the Census

Market Profile

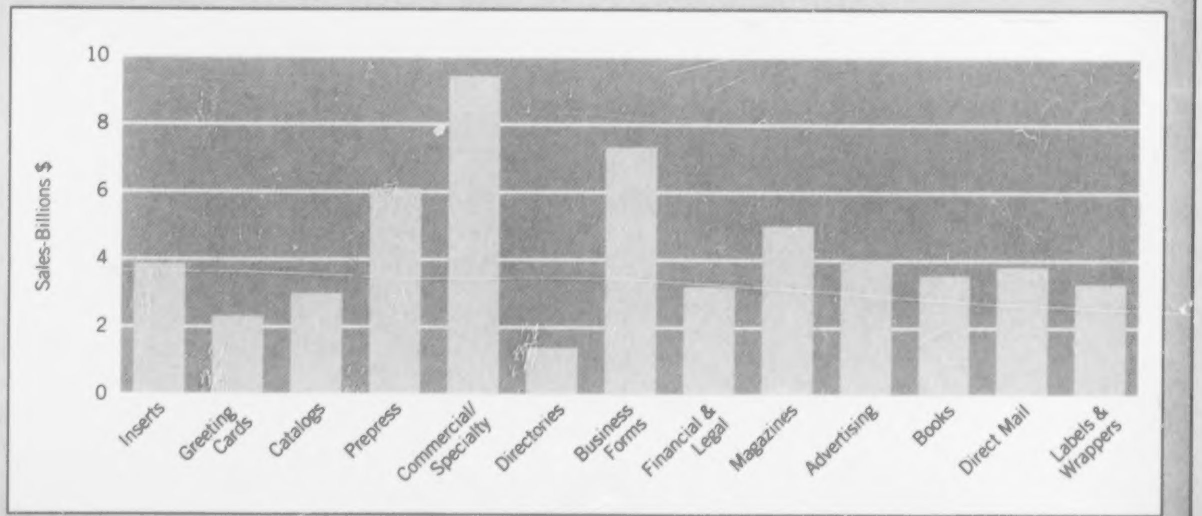
Ranking of Product Segments . . .

This ranking, taken from a list of larger printers, shows (unfortunately) the ability of statistics to create confusion, especially in a small sample. The presence of inserts at the top of the list is due entirely to the presence of manufacturing sites belonging to three major printers, R.R. Donnelley, Meredith/Burda, and Treasure Chest Advertising. The "dominance" of greeting cards is even more singular; it is due to one company, Gibson Greetings of Colorado Springs. Generally, one printer noted, the populous regions here remain very competitive.



. . . Compared to National Totals

The same comment can be made about catalog printing, most of which is done by two plants, belonging respectively to R.R. Donnelley and Ringier America. The biggest *indigenous* market segment in the Mountain region is prepress, and when more current data become available, this trend will be even more apparent. One category, label & wrapper printing, has no representation in the area. These bar charts are presented in similar order to simplify comparison between segment concentration in the Mountain region and the U.S. as a whole.



Leading Printers in Major Markets

COMPANY	SALES
INSERT PRINTERS	
R.R. Donnelley & Sons Company, Reno, NV	35.0
Meredith/Burda Corporation, Casa Grande, AZ	30.0
Treasure Chest Advertising, Salt Lake City, UT	25.0
Treasure Chest Advertising, Sparks, NV	15.0
Graphics Arts Publishing, Inc., Boise, ID	11.5
A.B. Hirschfeld Press, Inc., Denver, CO	9.0
Intermountain Color, Boulder, CO	8.0
Colorgraphics of Utah, Bountiful, UT	5.5
GREETING CARD PRINTERS	
Current, Inc., Colorado Springs, CO	111.3
CATALOG PRINTERS	
R.R. Donnelley & Sons Company, Reno, NV	50.0
Ringier America, Inc., Phoenix, AZ	40.0
A.B. Hirschfeld Press, Inc., Denver, CO	5.5
Messenger Graphics, Phoenix, AZ	3.0
Eastwood Printing & Publishing, Denver, CO	2.5
Publishers Press, Inc., Salt Lake City, UT	2.5
American Web, Inc., Denver, CO	2.5
PREPRESS	
GBP Industries, Phoenix, AZ	55.0
Volt Technical Services, Phoenix, AZ	23.0
Spectrum, Incorporated, Golden, CO	14.5
Messenger Graphics, Phoenix, AZ	1.5
COMMERCIAL/SPECIALTY PRINTERS	
Rocky Mountain Bank Note, Lakewood, CO	15.0
Pro Litho, Provo, UT	12.0
Current, Inc., Colorado Springs, CO	12.0
Frederic Printing, Aurora, CO	10.0
Imperial Litho Graphics, Phoenix, AZ	10.0
Salt Lake Printing Center, Salt Lake City, UT	8.5
Kistler Graphics, Denver, CO	8.0
Blaine Hudson Printing, Salt Lake City, UT	7.5
Messenger Graphics, Phoenix, AZ	3.0
Colorgraphics of Utah, Bountiful, UT	2.0
Publishers Press, Inc., Salt Lake City, UT	1.5
DIRECTORY PRINTERS	
Norwest Publishing Company, Greeley, CO	70.0
Graphics Arts Publishing, Inc., Boise, ID	6.0
BUSINESS FORMS PRINTERS	
Rocky Mountain Bank Note, Lakewood, CO	40.0
Woehrmyer Business Forms, Aurora, CO	13.0
BEI Graphics, Boulder, CO	11.0
FINANCIAL/LEGAL PRINTERS	
Rocky Mountain Bank Note, Lakewood, CO	60.0
MAGAZINE PRINTERS	
American Web, Inc., Denver, CO	13.5
Pacific Press Publishing Assn., Boise, ID	8.5
A.B. Hirschfeld Press, Inc., Denver, CO	7.0
Eastwood Printing & Publishing, Denver, CO	6.5
Ringier America, Inc., Phoenix, AZ	5.0
Salt Lake Printing Center, Salt Lake City, UT	4.5
Intermountain Color, Boulder, CO	3.5
Colorgraphics of Utah, Bountiful, UT	3.5
Messenger Graphics, Phoenix, AZ	2.5
Publishers Press, Inc., Salt Lake City, UT	1.5
ADVERTISING PRINTERS	
Imperial Litho Graphics, Phoenix, AZ	12.0
Pro Litho, Provo, UT	6.0
Frederic Printing, Aurora, CO	5.0
Blaine Hudson Printing, Salt Lake City, UT	4.5
BOOK PRINTERS	
Publishers Press, Inc., Salt Lake City, UT	7.5
Pacific Press Publishing Assn., Boise, ID	7.0
Salt Lake Printing Center, Salt Lake City, UT	6.5
Messenger Graphics, Phoenix, AZ	5.0
DIRECT MAIL PRINTERS	
Mail-Well Envelope, Phoenix, AZ	17.2
Kistler Graphics, Denver, CO	8.0

Selective listing, which indicates only the concentration of larger plants in larger segments, is from *Printmarkets*, Trade & Technology Press, Stamford, Conn., based on data provided by firms involved. Sales in millions.

How Printers Are Doing

Based on a survey of firms in the region, conducted by Cahners Publishing

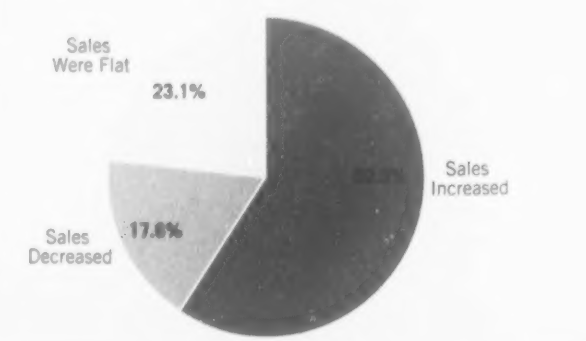
Profile of Respondents

Commercial printers in the Mountain region responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. The following information is as reported by survey respondents; 1990 gross sales were estimated.

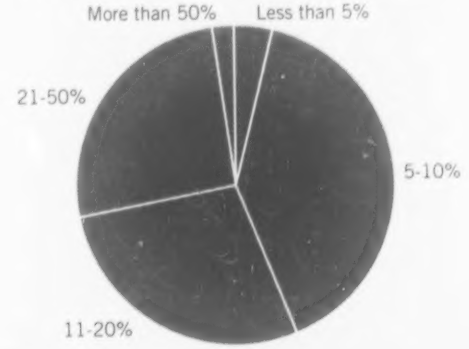
Gross Sales in 1990	
Less than $500,000	5.3%
$500,000-749,999	14.9%
$750,000-999,999	13.8%
$1 million-2,499,999	35.1%
$2,500,000-4,999,999	18.0%
$5,000,000-9,999,999	11.7%
$10 million or more	1.1%

# of Employees	
1-4	2.1%
5-9	12.8%
10-19	33.0%
20-49	31.9%
50-99	12.8%
100 +	2.1%

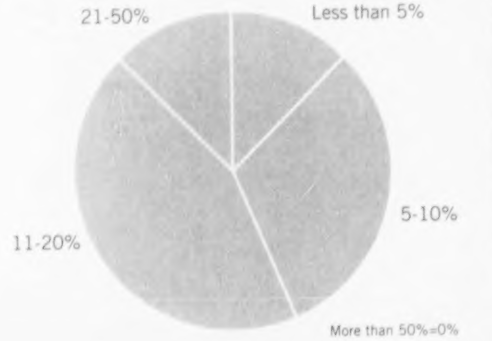
How Sales Changed, 1989 to 1990



If Sales Increased, How Large Was Increase?

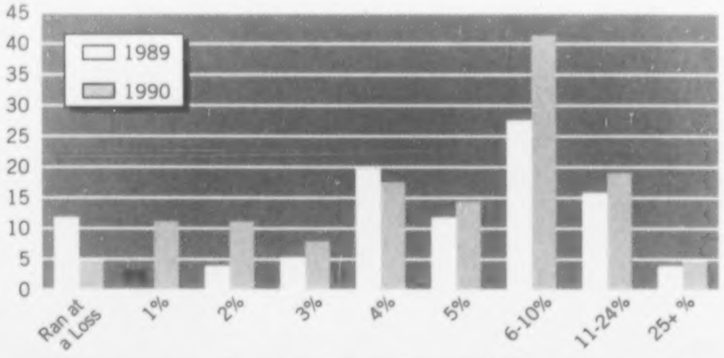


If Sales Decreased, How Large Was Decrease?

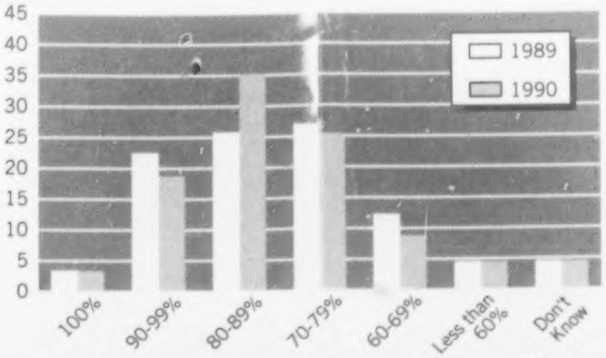


PROFITABILITY & CAPACITY

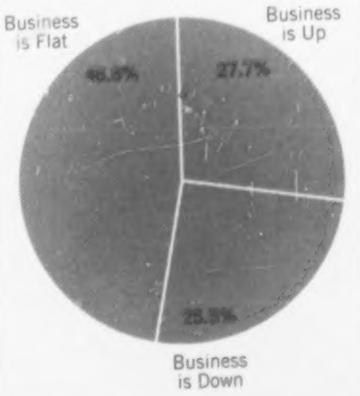
Profit as a percentage of gross sales



Operating percentage of plant apacity



Perception Index



Comments by Printers

- A diverse number of new businesses have moved into the area.
- Tourism is increasing in our area, so the press runs are increasing.
- Our business is stable, but industry-wide it seems to be soft.
- The Denver metro area has experienced economic bad times in our industry for the past few years.
- Some plants in our area have been slow. Fortunately, we have kept pretty busy.
- We tend to never reach the extremes (high or low) experienced in other parts of the United States.

Strategies for the Reuse of Paper

The following is the first piece of a two-part guest column excerpted from a speech given by Thomas C. Norris, chairman, president and CEO of paper manufacturer P.H. Glatfelter Co., Spring Grove, Pa., at the recent Focus '95 Landmark Recycling Symposium, in Atlanta.

Printing and writing papers consume about 1.4 million tons of waste stream recovered fiber, according to information published by the American Paper Institute (API). As part of the pulp and paper industry commitment to increase the reuse of paper to 40%, a voluntary commitment by this industry, the Franklin Study projects this figure will increase to 2.0 million tons by 1995. This will still represent only about 6% of total printing and writing production capacity in that year.

I recently reviewed the API capacity survey issued at the end of last year, and found that through the end of 1993, 300,000 tons of additional fiber will be used by our segment of the industry. This means that fiber reuse will increase to 1.7 million tons, a rate of growth of more than 7% per year. It also means that our segment of the industry is essentially on target to meet the Franklin projection.

I believe an opportunity exists for our segment of the industry to recycle even more, thus attaining greater than 6% of the printing and writing capacity. However, for this to occur within a reasonable period of time, immediate steps to encourage investment must be taken.

The capital required to increase the use of waste to produce printing and writing papers from 1.4 million tons to 2.0 million tons is going to be substantial; how large isn't really known, but will depend on whether new papermaking capacity has to be installed, or if this new capacity will come from modifications to existing machines. This must be determined by individual companies.

However, I can tell you that capital requirements just for deinking, waste treatment and pulping alone—to increase the 600,000 tons projected, and not counting expenditures for papermaking equipment or utilities—are estimated to be about $600 million, a sum that no industry will spend without consideration of availability and cost of capital, return on investment, and other financial questions. The total amount of capital that needs to be invested is, of course, considerably higher than that.

Anyone considering an investment of this magnitude in the recycled printing paper business must carefully examine at least four additional factors: long-term market demand (that is, for recycled versus virgin fiber printing papers); fiber sources; fiber cost; and environmental considerations, including permitting.

The market demand question centers around the issue of whether a market for recycled printing paper will exist for a sufficient length of time for a manufacturer to obtain a reasonable return on his investment. In this regard, I am highly encouraged by the fact that demand for recycled paper is currently being driven by a real problem: a shortage of available landfill space, coupled with the high cost of replacement landfill space. This is in sharp contrast to the short-lived increase in demand for recycled products we experienced during the late '60s and early '70s, when demand was based largely on a desire to conserve trees. Until recently, printing grade recycled products were deemed by many to be inferior in performance and/or appearance, and generally sold at a discounted price to comparable virgin fiber products. Reversion to this mindset by consumers would be a great restraint to the achievement of an adequate return on investment. At the same time, I am highly discouraged in the current printing paper market; impacted heavily by the recession and overcapacity, the recycled drive has lost a lot of its steam.

Insofar as fiber is concerned, most high-quality recycled printing and writing paper manufactured today is made with pulp substitutes and preconsumer fiber that must be deinked, the primary source of which is printing plant and converting plant trimmings, and waste destined for disposal of some sort, if a suitable outlet for reuse is not available. Small amounts of postconsumer fibers are also used.

Essentially, none of this so-called postconsumer fiber is collected at curbside. I believe sufficient fiber exists to support an industry expansion to the projected 2.0 million tons, and even higher. It will come from two main sources: high-grade preconsumer deinking fiber, and postconsumer office waste, both of which require source separation and deinking. It will not come from curbside collection.

Today, recycled printing and writing uses less than 20% of the high-grade deinking preconsumer fiber recycled in the U.S. The remainder is used by the tissue and paperboard industries, or is exported. Since printing and writing paper represents a higher-value use for this fiber than does tissue or paperboard, increases in the production of recycled printing and writing paper will heighten competition for this fiber. That will, in turn, lead to substantial price increases, as there is little more of this type of fiber available for collection.

The impact on the total waste paper utilization is to force all users, including the printing and writing industries, to search for ways to use lower classes, and therefore lower cost materials, as part of their furnish. This move may ultimately impact household separation, and therefore curbside collection.

Fiber Reuse in Recycled Printing and Writing Paper

Year	Tons (millions)
1990	1.4
1993*	1.7
1995*	2.0

*Estimated
Source: API & Franklin Associates

Next month: Office Waste & Environmental Considerations.

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THE MAGAZINE OF THE PRINTING INDUSTRY

Binderies Adapt to Short Runs, Fast Makeready, New Markets

Print 91 Preview · *Financial/Legal Printing*

Salary Survey '91: The Bigger Pay More

VOLUME 63, NUMBER 7

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THE MAGAZINE OF THE PRINTING INDUSTRY

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Vice-President and Publisher Ronald C. Andriani

Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken, Lisa Cross

Assistant Editor Bridget Kinsella Araje

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager Peter Johnston

Project Editor Debora Clesh Toth

Midwest Editor Bill Esler (312) 226-4641

Contributing Editors Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Jeff Rothstein

Classified Advertising Manager Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager Richard Negri (212) 463-6827

Business Manager Jerry Arotsky (212) 463-6603
Facsimile: (212) 463-6653

Contracts Coordinator Jeffrey Rothstein (212) 463-6608

Production Manager Daniel Coakley (212) 463-6545
Facsimile: (212) 463-6560

Promotion Manager Dorian Torregrossa

Research Manager Angela Venturino

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Reprints Carol Bien (708) 390-2235

Circulation Manager Carla Keller (303) 388-7623

Subscriptions/Back Issues (800) 637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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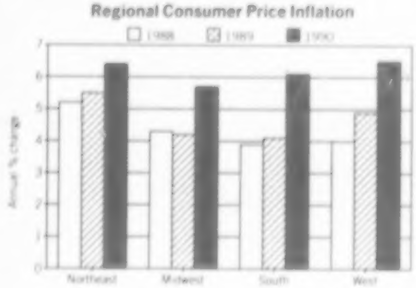
As Inflation Slows, The Fed Eases Interest Rates


Regional Consumer Price Inflation

With the Federal Reserve Board's cut of the discount rate to 5.5% on April 30th, we have, in all probability, seen the end of interest-rate declines for this cycle. The Fed had been reluctant to cut rates further out of concern that a reduction not matched by our major trading partners would weaken the dollar and increase inflationary pressures on our economy.

Credit conditions already appear to be improving as a result of previous actions. Money supply figures began turning up in February, indicating a greater demand for credit as well as the willingness of financial institutions to extend it. Also, weakening international economies are slowing foreign borrowing, further reducing the pressure on rates. Barring more signals of economic decline, the Fed may have made its last move to ease interest rates.

One of the factors behind the recent easing of interest rates by the Federal Reserve has been the slowdown of inflation during this recession. The producer price index (PPI) for crude materials was just 0.3% above 1990's level in the first quarter, and the forecast calls for a 5.1% drop for the entire year. Similarly, the PPI for intermediate materials and components will increase just 1.4% this year, the smallest jump since the manufacturing slowdown of 1986.

PPI Finally Up After Decline

Further downstream, the PPI for finished goods increased a slight 0.2% from March to April 1991, following four months of declines. Food and energy prices, typically the most volatile sectors, actually helped to reverse the rapid inflation trend. Excluding food and energy prices, producer price inflation is headed for a 3.2% gain this year. Overall, producer prices will post only a 2.6% gain by year-end.

Consumer price increases have also slowed. In each of the past three months, the consumer price index posted a modest 0.1% rise. Compared to last year, the index rose 5.2% in the first four months of 1991. While food and energy prices have moderated, medical care costs are rising relentlessly. The outlook for consumer price inflation calls for gains of 4.4% this year, and 4.2% in 1992 and 1993.

Regional inflation patterns show some variation. While inflation rates in the Northeast lead the nation, the Western region is catching up fast. Over the past four years, consumer prices increased at an average pace of 5.3% in the Northeast, 4.5% in the West, 4.3% in the Midwest, and 4% in the South. But in 1990, price inflation in the West edged slightly above the Northeast.

So far in 1991, the Northeast leads the way again, as fuel prices are 9.3% higher than a year ago. The fastest-growing housing prices are also found in the Northeast. Meanwhile, the West claims the highest inflation of food and medical care prices.

[illegible]

The New Face of Financial Printing

After the Crash: Are the strong getting stronger, and are the weak disappearing?

By Lisa Cross
Associate Editor

Consolidation, liquidation, and automation are the recent forces which have dramatically transformed both the financial printing and check printing industries. Familiar players have vanished, others have risen into leadership positions, and electronic technology has revolutionized virtually all production processes.

Among financial printers, the embracing of electronics has meant survival itself, as a way to control historically-high costs, and yet provide such new value-added customer services as database management, links to desktop systems, faster turnaround, global access, and automated addressing and mailing.

The financial printing industry has had many casualties since the October 1987 stock market crash, including such major national firms as Pandick, Chas. P. Young, and Sorg in the past 18 months.

"There has clearly been a great deal of overcapacity in the financial printing industry," observes Thomas J. Vos, vice president of marketing at Bowne & Co. Inc., New York City, the world's largest financial printer. "The industry has gone through a classic shakeout and restructuring; now the strong will get stronger and the weak will disappear."

Industry experts agree that heavy debt loads incurred prior to the stock market crash were among the big factors contributing to those organizations' demise. Costs associated with a leveraged buyout prohibited some companies from investing in the necessary technology needed to survive, while others invested in equipment that did not work.

"Technological advancement is rapidly leading to a world of instantaneous communications," explains Richard H. Koontz, Bowne's president. "The driving force is the need for speed, along with improved productivity."

In this specialized market segment, information management and customer service are more important than the actual printing. Technology now allows financial printers to better serve their clients by reversing the traditional sequence; instead of capturing information and printing it locally for wide distribution from there, financial printers can now electronically distribute the information, then print it nearer to recipients.

"As the cost of print distribution goes up and the cost of data transmission comes down, we're getting to the point where we are transmitting and then producing," explains Jonathan Ward, president of R.R. Donnelley's Financial Printing Services, New York City, another industry giant.

Electronic typesetting systems are the heart of any financial printing operation. The industry's leaders are those printers who have consolidated typesetting into a few operations, and electronically linked all offices to these facilities.

"This is a high fixed-cost business, in which you can't afford to build a staff level at each location for peak demand," Ward explains. "Instead, you use your local capabilities to transmit information to fully-staffed hubs that can manage peak demand in a

1989
Annual Reports
MASS TRANSIT ADMINISTRATION
SPECIMEN
PILGRIM GROUP

Peter Neumann

real-time basis. Our system facilitates the most efficient placement of work to best meet our clients' needs."

John Castro, president, Merrill Corporation, St. Paul, Minn., agrees that the hub-and-spoke system was devised to give affordable service to clients. "You can't give the best service at a fair price today if you have either excess equipment or people," he says. "Five years ago, clients would pay for excess capital equipment and people, just to be in standby mode for that one busy night. That situation no longer exists."

After the industry shakeout, remaining players certainly saw demand increase, but industry insiders report dramatic deterioration of pricing.

Observes Castro, "In late 1990 prices actually went *below* cost as some companies took their last gasp of air. Thankfully, I don't see that much anymore."

"Still, the industry needs to see a return to rational pricing," reports Ward. "Irrational pricing—where people are pricing their services on a cash flow basis and not on a return on investment perspective—has became apparent in the industry."

He adds, "If there is an interest in maintaining a healthy financial printing industry, the marketplace needs to understand we're entitled to make a reasonable profit."

Another blow recently dealt to the industry: the slack financial markets created by the war in the Persian Gulf. For some the situation was worse than the 1987 crash; but since the war's end in February, business has picked up substantially.

The key to staying in business in the financial printing industry has been the ability to adapt to the changing needs of the customer. For example, the increased use of desktop publishing systems created the need to interface typesetting and desktop technologies.

"We are very close to being

Typical Products

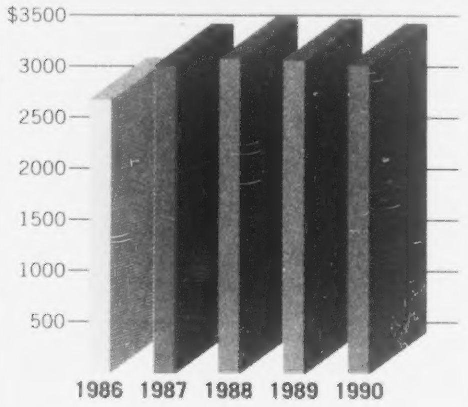
SEC Filings
Registration Statements
Prospectuses, Proxy Materials
Bank Forms
Stock Certificates
Loan Coupon Books
Bank Account Passbooks
Legal Briefs and Documents

Typical Users

Banks
Corporations
Financial Institutions
Legal Services Company

Financial/Legal

1990 Print Sales: $3,015 (millions)



($ in millions)

Financial/Legal Printers

Rank	Company .... Sales in millions*	
1	Deluxe Corporation	$958.0
2	John H. Harland Co.	285.0
3	Clark American (MB America)	247.5
4	Bowne & Co. Inc.	144.6
5	U.S. Banknote Corp.	113.0
6	Rexham Security Products	100.0
7	Safeguard Business Systems	90.0
8	R.R. Donnelley & Sons	85.0
9	Rocky M'nt'n Bank Note Co.	65.0
10	Merrill Corporation	60.0

*Note: Preliminary Ranking

Source: PrintMarkets

Chart by Annabelle Carter

PostScript compatible with our composition system," Ward explains. "We can now take any PostScript file into our system and output it."

Mailing and distribution is another area where innovation will play an important role. Drawing from technology used in one of its other printing markets, Donnelley has the capability to combine various pieces of its customers' information—traditionally sent in several mailings—into a single mailing. The information is polybagged, then inkjet-addressed to the end user.

"In today's environment, it's not unusual for someone investing in mutual funds to invest in more than one from the same company, and receive three different envelopes each quarter," Ward notes. "Through Selectronic gathering, we have the ability to co-mail these and, in turn, drastically reduce distribution costs, and offer better and faster distribution."

However, he adds, "I would say that the financial print marketplace still is not very sophisticated in its ability to demographically define its customer base for target mailings."

The financial printing industry has also entered the global marketplace. In some cases on just 24-hour notice some arrangement can be made to accommodate clients anywhere in the world. The construction of global transmission networks has already begun.

Value-added services for the global market have also surfaced. Bowne offers translation services for financial, legal, and corporate entities participating in the international marketplace. To date, the service has translated financial printing documents, contracts, and other materials into more than 20 languages.

Those remaining financial printers appear to be doing everything they can to oblige customer demands, but their fate ultimately is bound to their primary client base, the financial markets.

Like the financial printing market, the check printing industry has also experienced a decrease in the number of players. "Ten years ago there may have been a few dozen check printers; now, four national check printers remain, accounting for 90% of the business," says Bruce Danielson, communications director at John H. Harland, Atlanta.

Although the check printers' primary customers, banks, have decreased in number because of consolidation, the scope of some of the nation's financial institutions has increased tremendously. Once-regional banks are expanding to serve multiple markets (in some cases, the entire nation).

To remain competitive, check printers have had to invest in plant upgrades and computer technology. Until 10 years ago, most checks were printed by letterpress; now almost all are printed offset. The shift has made the process less labor-intensive, and increased productivity.

John H. Harland Company, for example, has invested millions to upgrade or build facilities, train employees, and create computerized networks to connect customers to their facilities. As a result, the company experienced its best productivity gains in four years.

At Deluxe Corporation, St. Paul, Minn., new proprietary technology allows for printing checks in a single press pass. Company representatives report the capability has decreased manufacturing hours, while check printing volume increased.

To expedite operations, Clarke American, of San Antonio, installed a data communications network that connects production facilities, sales locations, and administration. A centralized database is accessible to customers, which includes information on order entry, manufacturing, inquiries, and billing.

Banks can place orders with Clarke directly from computer terminals in their offices. Orders are processed literally seconds after they are received.

While it's obvious the financial and check printing landscapes have changed, due to economic and market fluctuations, one fact remains clear: those who are left have made the commitments to new technology and customer service that will ensure their survival, regardless of economic or market whims. ▤

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New York Toughs It Out

There are a couple of hundred newspapers published in New York—in English, Spanish, Chinese, Korean, Hungarian, Russian, Greek, Arabic, Yiddish, Italian, Gaelic, Vietnamese, and a number of other languages. Virtually every one of these newspapers, plus another hefty contingent of magazines, has at least one article in each issue about the state of things in New York City.

Despite this, or maybe because of it, it is virtually impossible to find out in any clear-cut way what's going on there. Even defining it is a problem; greater New York City includes parts of three states, but unfortunately no one agrees on just which parts.

Our focus is on the printing industry, of course, and the picture is not terribly bright at the moment. Some New York printers are doing well, but overall sales volume, profitability, and capacity utilization are substantially down.

If the 1980s were a party, this is the hangover, and New York gets a double dose. On the one hand, it was the most inflated local economy in the country. On the other hand, a major factor in the economy was the financial industry, i.e., Wall Street, where only a few years ago there were 23-year-old MBAs wearing gold Rolexes and starting at upwards of $60,000 a year.

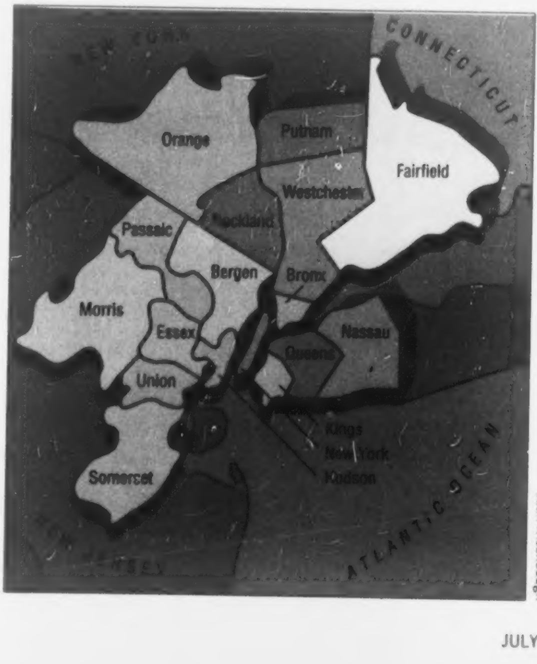
In the last couple of years, New York real estate prices have dropped more than 20%, an estimated 35,000 jobs have vanished from Wall Street, and the entire local economy has suffered. Pawn shops are full of slightly-used Rolexes.

Printing, the quintessential service industry, has taken a body blow. [See previous story for a detailed look at what's happened to financial printers.] Furthermore, the New York printing industry was already in a state of retrenchment during the 1980s, its one-time preeminence under pressure from real estate and labor prices, shipping difficulties, and competition from other areas. Many printers moved—first out of Manhattan, then out of the city altogether. By the end of the decade, to take one example, the last New York web offset house was gone.

None of which means that this is the end for printing in New York, or anything like it. Eventually the economy will bottom out, and sooner or later it will recover. With that, the printing industry will recover, too.

The industry in the city will continue to change in nature, becoming more local in focus as national competition spreads. Still, depending on how you count them, there are somewhere between 10 and 15 million people in greater New York; that's quite a local economy. For now, New York printers are hanging on, studying the wind, and learning to adapt.

Reprints may be ordered from Carol Bien, Cahners Publishing, Reprint Department, 1350 E. Touhy Ave., Des Plaines, IL 60018.



Jean Wisenbaugh

By Peter Johnston
Special Projects Manager

Regional Overview

Unlike many other areas, population density and number of printing sites are not related in New York. Manhattan, which has almost the same population as the Bronx, has 36 times as many printing sites. A look at the educational attainment figures shows the enormous socioeconomic variance to be found in the New York City area. Except for Manhattan (a land area of 26 square miles and a law unto itself), there seems to be some rough correlation between these indices and printing activity.

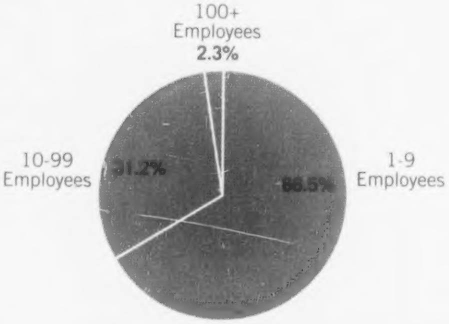
POPULATION AND PRINTING SALES

County (Borough)	Printing Sites	Population
STATE OF NEW YORK		
New York (Manhattan)	1,107	1,478,000
Queens	151	1,923,200
Kings (Brooklyn)	141	2,293,200
Bronx	30	1,193,600
Richmond (Staten Island)	16	374,600
TOTAL, NEW YORK CITY	**1,445**	**7,262,700**
Nassau	233	1,323,000
Suffolk	203	1,312,000
Westchester	119	863,200
Orange	23	281,700
Rockland	20	265,900
Putnam	5	81,600
TOTAL, OUTLYING NY COUNTIES	**603**	**4,127,400**

County (Borough)	Printing Sites	Population
STATE OF NEW JERSEY		
Bergen	248	836,900
Essex	133	841,900
Union	109	504,000
Passaic	86	460,900
Morris	74	419,000
Hudson	65	553,100
Somerset	22	215,700
TOTAL, NEW JERSEY COUNTIES	**737**	**3,830,800**
STATE OF CONNECTICUT		
Fairfield	151	821,000
TOTAL, GREATER NYC	**2,936**	**16,041,900**

Source: U.S. Department of Commerce, Bureau of the Census

Plants by Employee Count



Source: GAM 1990 Plant Equipment Market Profile

Charts and graphs by Lisa Hilgers

Educational Attainment

County (Borough), State	High School Graduates	College Graduates
U.S. Average	66.5%	16.2%
Morris, NJ	80.2%	28.6%
New York (Manhattan), NY	77.7%	23.9%
Westchester, NY	75.2%	28.0%
Bergen, NJ	73.7%	23.8%
Fairfield, CT	73.0%	25.9%
Hudson, NJ	51.5%	11.2%
Bronx, NY	50.8%	9.1%

Source: U.S. Department of Commerce, Bureau of the Census

Concentration of Business by Type

While these numbers use a slightly different definition of the metropolitan area, they show the enormous concentration of the New York printing industry. For reference, and to give printers from other areas an appreciation of some of the logistical problems created by this concentration, it is useful to remember that Printer's Row refers to an area of southwestern Manhattan long a stronghold of printing companies; more specifically, the area encompassed by these statistics is covered by Map A in a report prepared for the New York City Office of Economic Development, by Coopers & Lybrand, and Harrie F. Lewis Associates. Map A covers an area bounded by 34th St., Third Ave., Chambers St., and the Hudson River.

Press

Manhattan:	
Printer's Row	16%
Other Manhattan	19%
Bronx	2%
Brooklyn	11%
Queens	10%
Staten Island	1%
New Jersey Counties	40%

Prepress

Manhattan:	
Printer's Row	24%
Other Manhattan	35%
Other NYC Boroughs	9%
New Jersey Counties	33%

Postpress

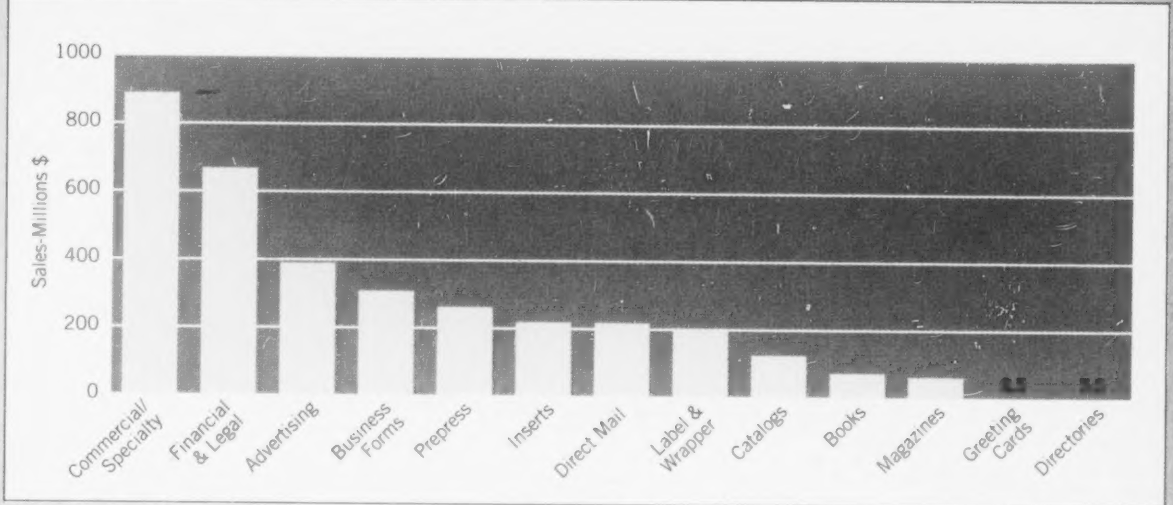
Manhattan:	
Printer's Row	26%
Other Manhattan	18%
Bronx	2%
Brooklyn	14%
Queens	8%
Staten Island	1%
New Jersey Counties	32%

Source: Printing Trades Blue Book

Market Profile

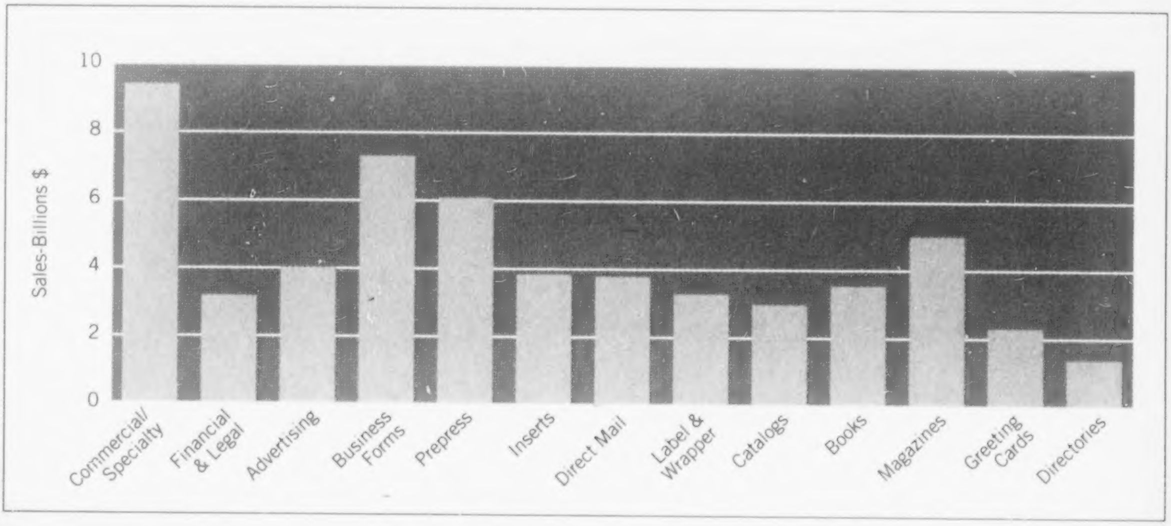
Ranking of Product Segments . . .

New York's position as headquarters of the financial industry (battered, but still large) and advertising account for the dominance of these two segments. Conspicuous by their unimportance—as compared with other printing centers in the U.S.—are segments primarily involving long-run web work, such as magazines, catalogs, and directories. Book printing (unlike book publishing) is also a fairly minor part of the New York scene. Data pending revision.



. . . Compared to National Totals

Both in New York and in the U.S. as a whole, commercial/specialty printing is the leading segment. Our comment about book, magazine, and directory printing in New York applies to business forms as well, which play a much larger role in national printing totals than in the city's rather specialized printing milieu. These figures, it should be noted, are based on a 1988 survey of major printers. The revised research, due out shortly, will paint a slightly different picture of the New York printing industry. Data pending revision.



Leading Printers in the Region

NEW YORK STATE

Adams Group, NYC
Alfred Mainzer, Long Island City
American Bank Note Holographics (U.S. Bank Note), Elmsford
American Bank Note (U.S. Bank Note), NYC
Americom Graphics, Elmsford
Ampco Printing, Bronx
Applied Graphics, NYC
Aztech/G.P. Young (Devon), NYC
Bowne & Co., NYC
Bregg Data Forms, Hauppauge
Brett-Forer Greetings, NYC
Bridge Litho, NYC
Cherry Lane Litho, Plainview
Corporate Printing, NYC
DVC Industries, Bay Shore
Deven Lithographers, Brooklyn
Direct Communications, Purchase
Direct Press/Modern, Huntington Sta.
R.R. Donnelley/NY Financial, NYC
Enterprise Press, NYC
Esselte Pendaflex, Garden City
Georgian Press, NYC
H.W. Wilson, Bronx
Herst Litho, NYC
International Paper, Purchase
Ivy Hill Corp., NYC
Julius Blumberg, NYC
Kwik Int'l. Color, NYC
L.K. Litho, Middle Island
Lasky Co., NYC
Latham Process, NYC
Lenz & Riecker, NYC
MGI Ind. (MGI/Colorforms), NYC
Maggio Data, Hauppauge
Master Eagle (Enteron), NYC
Metro Seliger Ind., Woodside
OCR Data Systems, Elmsford
Pace Press (Metro Litho), NYC
Packard Press, NYC
Paxar Corp., Pearl River
Penn Corp. (Western Pub.), NYC
Phipps Press (Potomac), Freeport
Potomac Graphic Ind., NYC
Pub. Book Bindery, Long Island City
Quality House, Long Island City
Queens Group, Long Island City
Regency Thermographers (Williamhouse-Regency), NYC
Rothchild Printing, Elmhurst
Septum Printing, Oceanside
Shorewood Pkg., NYC
Tabard/Copley Graphics, NYC
Tanagraphics, NYC
Tartaro Slavin (Wace), NYC
Transkirt, Brewster
U.S. Banknote, NYC
Uniflex, Hicksville
Volt Information, NYC
Walker Pioneer-Moss, NYC
Web Press, Brooklyn
Western Pub., NYC

NEW JERSEY

AEP Ind., So. Hackensack
Alford Inc., Ridgefield Pk.
All-States Bus. Prod., Randolph
Ariston (Engraph), Hillsdale
Barton Press, W. Orange
Balleville/Rand McNally, Belleville
Bertek, Fort Lee
Book-Mart Press, No. Bergen
Carci Alfi Forms, Brentwood
Carson Ind., Andover
Compton Press, Morris Plains
Cowdin Printing, Fair Lawn
Drucker (Meehan-Tooker), Linden
Ever Ready Label, Belleville
Federal Bus. Prod., Clifton
Federal Paper Board, Montvale
GS Imaging (Wace), Carlstadt
Gotham Graphics, Lyndhurst
Greater Jersey Press, E. Brunswick
Horowitz-Rae Book, Fairfield
Hygrade Printing, W. Caldwell
Jersey Printing, Bayonne
L.P. Thebault, Parsippany
Lasky, Millburn
MacNaughton Elson, Fair Lawn
May Tag & Label, Hillside
Meehan Tooker, E. Rutherford
Metro Litho, Moonachie
Pace DeTorres (Metro), Moonachie
Panorama Press, Clifton
Pavey Env. & Tag, Jersey City
Permanent Label, Clifton
Pictorial Offset, Carlstadt
Plymouth Printing, Cranford
Sandy-Alexander/Mickelberry, Clifton
Scott Printing, Jersey City
Service Press, Metuchen
Somerset Pub. (Quebecor), Somerset
Sterling Regal (Wace), Carlstadt
Union Camp, Wayne
Webcraft Tech., No. Brunswick
Wood Press, Paterson

CONNECTICUT

Danbury Bus. Forms, Danbury
Danbury Printing & Litho, Danbury
Devon Group, Stamford
MB America, Westport
Modern Printing/Quebecor, Brookfield
Pitney Bowes, Stamford
Recording & Statistical, Norwalk

For current sales revenue, market segment, and ranking data, see 1991 edition of *Printmarkets*, Trade & Technology Press, Stamford, Conn. Preliminary information.

How Printers Are Doing

Based on a survey of firms in the region, conducted by Cahners Publishing

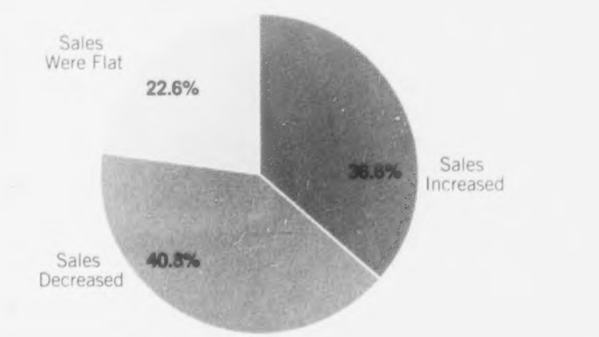
Profile of Respondents

Commercial printers in the greater New York metropolitan area responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. The following is as reported by survey respondents; 1990 gross sales were estimated.

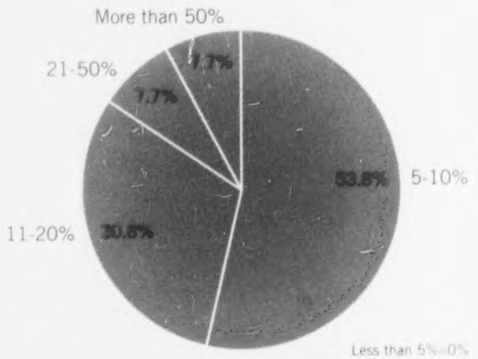
Gross Sales in 1990	
Less than $500,000	4.0%
$500,000-749,999	21.3%
$750,000-999,999	17.3%
$1 million-2,499,999	30.7%
$2,500,000-4,999,999	10.7%
$5,000,000-9,999,999	13.3%
$10 million or more	2.7%

# of Employees	
1-4	5.3%
5-9	22.7%
10-19	29.3%
20-49	29.3%
50-99	13.4%
100 +	0%

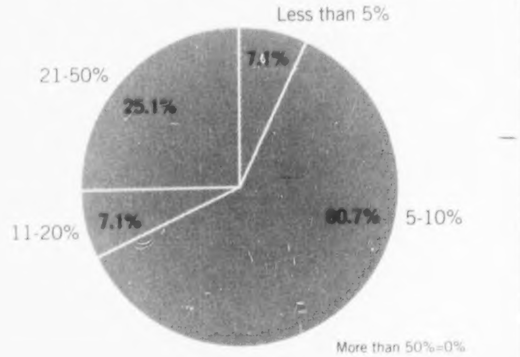
How Sales Changed, 1989 to 1990



If Sales Increased, How Large Was Increase?

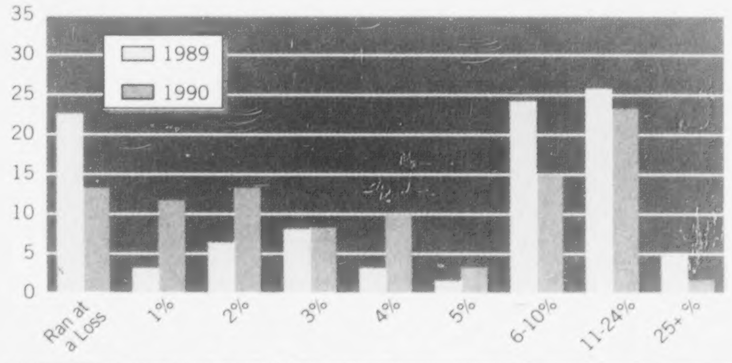


If Sales Decreased, How Large Was Decrease?

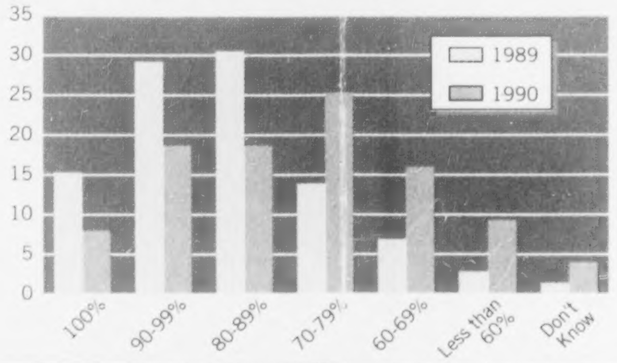


PROFITABILITY & CAPACITY

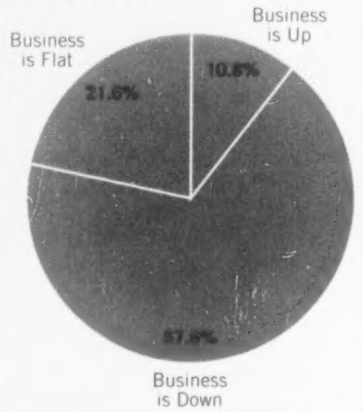
Profit as a percentage of gross sales



Operating percentage of plant capacity



Perception Index



Comments by Printers

- Smaller sheetfed work is growing; high quality, quicker turnaround.
- Many shops are going out of business or laying off people.
- Business is declining, but saturation of printers is also declining, which will spur sales.
- Large printing-only shops closing up; multi-purpose shops with all capability are doing better.
- Business in general is declining, but the good shops are maintaining.
- Even our best corporate accounts have cut back.

1991 SALARY SURVEY

Who Makes What

The GRAPHIC ARTS MONTHLY 1991 salary survey shows that salaries in the commercial printing industry saw modest increases; the greatest jumps appeared in the larger companies.

Of the 23 job titles surveyed this year, three decreased from 1990 levels, 14 increased (eight were double-digit increases), and six job titles stayed relatively the same (±2%). In the 1990 survey, every slot showed an increase; all but two showed a double-digit increase. What a difference a year makes.

For GAM's third annual salary survey, the results are presented in the detachable, double-gatefold form appearing opposite this page.

Interestingly, the data supports the long-held theory that the larger the company, the larger the paycheck. Also, the number of employees in your company has a greater bearing on your salary than does the geographic region in which it is located.

Companies with less than 10 employees paid an average of more than three times less for an employee in the same position in the largest companies (200 or more employees). The greatest gap occurs in the Management Staff job category, where Chairman of the Board, President/CEO, and three vice presidential positions in companies with 200 or more employees earn an average of more than double their counterparts in companies with fewer than 10 employees. In the category of Chairman, the increase is more than four-fold.

Less startling are the contrasts in salary due to region. Without question the region that ranks first—tops in 11 of the 23 jobs for the highest salaries—is the Middle Atlantic (MA) area (New Jersey, New York, Pennsylvania). The sector with the lowest salaries, on average—claiming 10 of the 23 slots—is Mountain (M), (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming).

Contrasting the results over the past three years, an intriguing trend emerges. In the first two years, New England (NE) and MA alternated the first and second places for highest salaries paid; however, while MA was at the top in 1991, a close second was the West South Central (WSC), holding the top position in seven out of the 23 jobs. Just two years ago, according to the survey, WSC reported paying the lowest salaries on average. This, coupled with the fact that in 1991 WSC pushed NE out of the number two position for paying the highest salaries, indicates a great change in both of these areas.

For the first time, GAM questioned survey participants about their company employee benefits. Like salaries, benefits are related to company size; for specifics, see the gatefold.

The survey questionnaire was sent to a random sample of GAM readers, plus the 101 largest printers as determined by the GAM 101 survey (see August issue), for a total of 2,101. There were 528 responses, or a 25% response rate. One job title, Counter/Order Clerk, was removed from the survey, leaving a total of 23 job categories.

Note that the figures given here are for base salary only, without any extras, and that this year's pool of respondents is not necessarily the same as last year's pool. Thus, the column adjacent to the national averages indicates the percentage change for the same position as reported in the study last year, not as reported by the study respondents this year.

Additional copies of the GAM 1991 Salary Survey can be purchased, $5 each, or $3 each for 10 or more, from Carol Bien, GAM Reprints, 1350 East Touhy Ave., Des Plaines, Ill. 60018. Be sure to send payment with order and make checks payable to Cahners Publishing Company.

By Bridget Kinsella Arajs
Assistant Editor

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monthly

1991 Salary Survey

Compensation levels didn't rise over last year's. What's clear is the pay gap between large and small firms.

What an employee gets paid depends more on the size of his/her company than its geographic location. This consensus is drawn from GRAPHIC ARTS MONTHLY's third annual commercial printer's salary survey.

Comparing companies with fewer than 10 employees to those with 200 or more, the salary gap is more than three times in favor of the larger printer. That is, on average the employee of the smaller company earns about one-third the salary of his/her big-company counterpart.

This year's salaries do not match the huge increases in the 1990 survey, when every job category saw a rise, all but two double-digit increases.

Figures given are for base salary only, without extras; this year's respondents are not necessarily the same as last year's. The percentage change in national salary averages indicates the percentage change in salary for the same job as reported last year, not as reported by the study respondents this year.

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Illustrations by Santiago Cohen

1991 SALARY SURVEY

	1991 National Average	% Change from 1990*	AVERAGE SALARIES					
			By Region (See Key)		By Employee Count		By Revenue	
			Lowest	Highest	Less than 10	200 or more	Less than $500,000	$20 million or more
UPPER MANAGEMENT STAFF								
Chairman of the Board	$145,100	+5.7%	$82,000 (ESC)	$229,200 (MA)	$35,200	$196,100	$35,200	$199,900
President/Owner/CEO	69,100	−0.9	46,000 (ESC)	80,800 (MA)	41,200	148,600	38,600	170,500
General Manager	57,500	+11.0	30,600 (M)	78,500 (MA)	31,800	97,900	29,900	109,100
VP—Sales & Marketing	76,800	+0.5	53,000 (ESC)	112,100 (NE)	29,100	109,900	32,100	114,600
VP—Finance	72,100	+17.2	39,700 (M)	110,200 (WSC)	23,700	88,000	34,500	97,100
VP—Manufacturing	75,400	+27.6	58,000 (ESC)	96,100 (WSC)	29,100	88,400	70,800	91,800
OFFICE/FINANCIAL								
Controller	42,800	+3.1	30,200 (M)	48,800 (WSC)	22,000	55,100	26,900	56,100
Estimator/Planner	36,200	+13.1	29,700 (WNC)	46,600 (NE)	23,600	39,200	22,200	42,300
Office Manager	25,400	+9.5	20,900 (WNC)	32,700 (MA)	20,200	37,600	19,800	41,700
Human Resources Manager	44,000	+11.1	31,300 (WNC)	68,400 (WSC)	—	47,400	48,400	49,900
Purchasing Agent/Buyer	37,900	+16.6	25,700 (M)	60,200 (WSC)	27,200	42,600	32,400	46,400
PRODUCTION MANAGEMENT								
Plant Manager/Superintendent	43,600	+1.9	25,500 (ESC)	54,100 (WSC)	25,200	66,200	20,400	66,700
Production Manager	33,900	−1.2	24,600 (SA)	42,900 (MA)	24,200	53,400	23,700	56,900
Quality Control Supervisor	38,000	+10.8	26,800 (M)	46,700 (WSC)	—	41,000	42,200	41,800
Production Scheduler	32,800	+15.1	23,300 (SA)	37,000 (ENC)	18,300	37,000	25,900	36,900
DEPARTMENT FOREMAN								
Composition Foreman	27,900	+3.7	23,000 (M)	38,500 (NE)	20,400	38,200	21,200	35,400
Prep Department Foreman	35,500	+1.1	28,700 (ESC)	42,800 (MA)	22,600	47,200	21,900	45,600
Press Department Foreman	35,000	+2.3	28,500 (M)	42,700 (MA)	23,100	54,000	23,500	52,000
Bindery Department Foreman	30,500	−7.9	22,200 (M)	36,000 (MA)	16,900	48,200	19,300	47,000
Maintenance Foreman	40,700	+22.2	37,000 (WNC)	45,500 (M)	15,000	44,800	32,800	43,500
SALES/MARKETING								
Sales Manager	51,400	−6.2	32,000 (ESC)	63,400 (MA)	30,800	81,100	32,400	80,100
Sales Representative	38,000	−2.8	20,800 (M)	52,800 (MA)	21,900	69,400	22,500	70,600
Customer Service Manager	30,300	0.0	19,000 (M)	38,700 (MA)	20,700	44,300	21,000	41,700

*Indicates comparison to 1990 study results, not actual salary increases.

	AVERAGE SALARIES BY REGION (SEE KEY)								
	New England	Middle Atlantic	South Atlantic	East South Central	East North Central	West North Central	West South Central	Mountain	Pacific
UPPER MANAGEMENT STAFF									
Chairman of the Board	$157,000	$229,200	$144,200	$82,000	$108,500	$100,800	$200,000	$195,000	$145,800
President/Owner/CEO	65,000	80,800	72,400	46,000	65,500	67,900	67,700	49,900	72,000
General Manager	51,700	78,500	52,400	45,300	55,000	52,000	65,900	30,600	54,500
VP—Sales & Marketing	112,100	81,600	60,400	53,000	67,400	68,300	105,900	53,800	104,000
VP—Finance	59,100	88,800	65,400	—	64,400	65,600	110,200	39,700	69,300
VP—Manufacturing	67,600	60,900	63,500	58,000	70,800	70,000	96,100	75,000	68,000
OFFICE/FINANCIAL									
Controller	43,200	47,300	38,900	37,100	44,700	37,200	48,800	30,200	43,500
Estimator/Planner	46,600	40,900	31,300	31,000	34,100	29,700	45,800	32,900	35,800
Office Manager	23,300	32,700	22,100	21,000	22,600	20,900	28,000	23,600	27,800
Human Resources Manager	36,200	43,100	46,600	—	44,200	31,300	68,400	63,000	38,800
Purchasing Agent/Buyer	31,200	45,900	30,800	26,500	39,900	31,900	60,200	25,700	31,600
PRODUCTION MANAGEMENT									
Plant Manager/Superintendent	44,100	48,200	39,300	25,500	43,300	39,600	54,100	34,000	47,400
Production Manager	36,000	42,900	24,600	32,000	32,000	32,600	38,900	25,600	33,500
Quality Control Supervisor	—	38,200	35,100	27,500	41,200	42,400	46,700	26,800	38,100
Production Scheduler	36,700	35,900	23,300	35,000	37,000	27,500	31,000	32,700	32,800
DEPARTMENT FOREMAN									
Composition Foreman	38,500	29,600	25,500	24,300	29,100	28,300	26,400	23,000	28,700
Prep Department Foreman	37,900	42,800	30,600	28,700	34,200	36,700	29,100	32,300	37,300
Press Department Foreman	36,500	42,700	28,700	28,600	36,200	38,100	28,600	28,500	37,400
Bindery Department Foreman	35,500	36,000	26,900	22,600	30,400	31,600	25,800	22,200	34,300
Maintenance Foreman	37,600	43,000	43,900	—	39,000	37,000	39,200	45,500	37,500
SALES/MARKETING									
Sales Manager	57,200	63,400	44,400	32,000	47,800	40,600	61,300	48,000	48,000
Sales Representative	44,200	52,800	33,200	26,500	37,600	33,900	32,000	20,800	33,500
Customer Service Manager	30,800	38,700	22,500	20,000	32,800	28,000	31,800	19,000	31,400

METHODOLOGY

In late March, a two-page questionnaire was mailed to 2,101 GRAPHIC ARTS MONTHLY readers: 2,000 names on an Nth name basis from GAM's circulation, and 101 names from the GAM 101, a ranking of the largest printers.

There were 528 responses—a response rate of 25%. Of these, 67% have a job title of officer/partner/owner/president/CEO; 16% are vice presidents/directors/general managers.

Angela Venturino and Cathy Hoey of the market research department at Cahners Publishing conducted the study. Assistant Editor Bridget Kinsella Arajs, Editor Roger Ynostroza, Art Director Karen Lehrer, and Production Editor Mick Andreano planned and coordinated the project and prepared it for presentation.

BIGGER COMPANIES, HIGHER $ALARIES

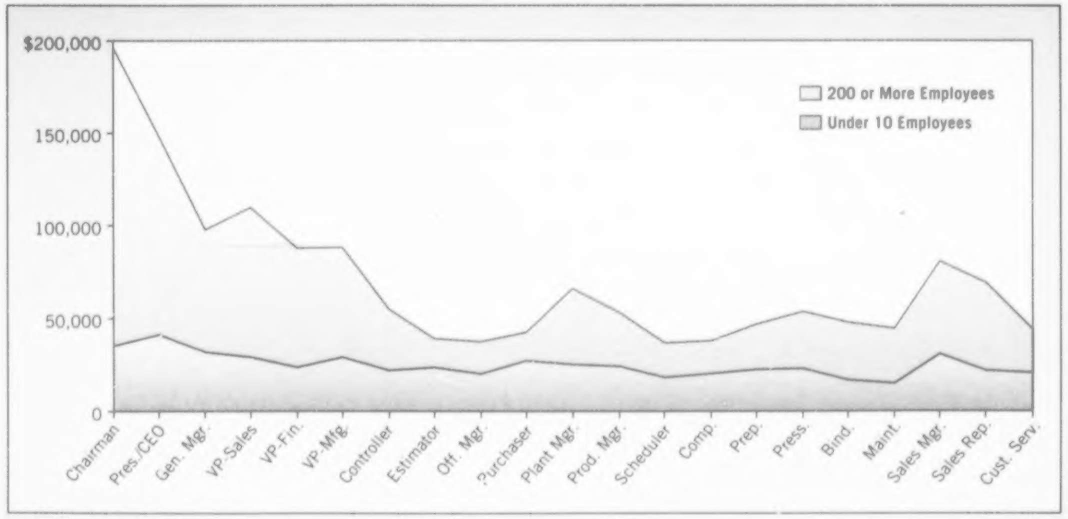
The 1991 survey indicates what you've always suspected: bigger companies pay better. Graphically obvious in these charts is the salary gap between the largest companies and the smallest. The spread is greatest among management staff positions; extreme disparity occurs in the chairman slot, where the difference is four-fold.

In the office/financial jobs—starting with controller—there is a drastic downturn in earnings among the larger companies, closing the salary gap. Yet, the gap reappears at the plant manager and production manager entries.

The two curves are almost parallel from this point up until the sales manager position. Although these salary figures reflect only base numbers, excluding bonuses and commissions, it is likely that sales manager base salaries reflect the size of the company even without the extras, explaining the disparity.

The graph on the facing page further illustrates this salary gap. There the focus is on three jobs—vice president/manufacturing, plant manager/superintendent, and press department foreman—and the gradual increase in salary relative to company size.

The general trend—salaries go up as company size increases—has some exceptions: VP and plant manager salaries for the largest printers are actually lower than those in the second-largest size category (150-199 employees). Press department foreman salaries in companies with 150-199 employees are lower, on average, than those in the same job in companies with 100-149 employees.

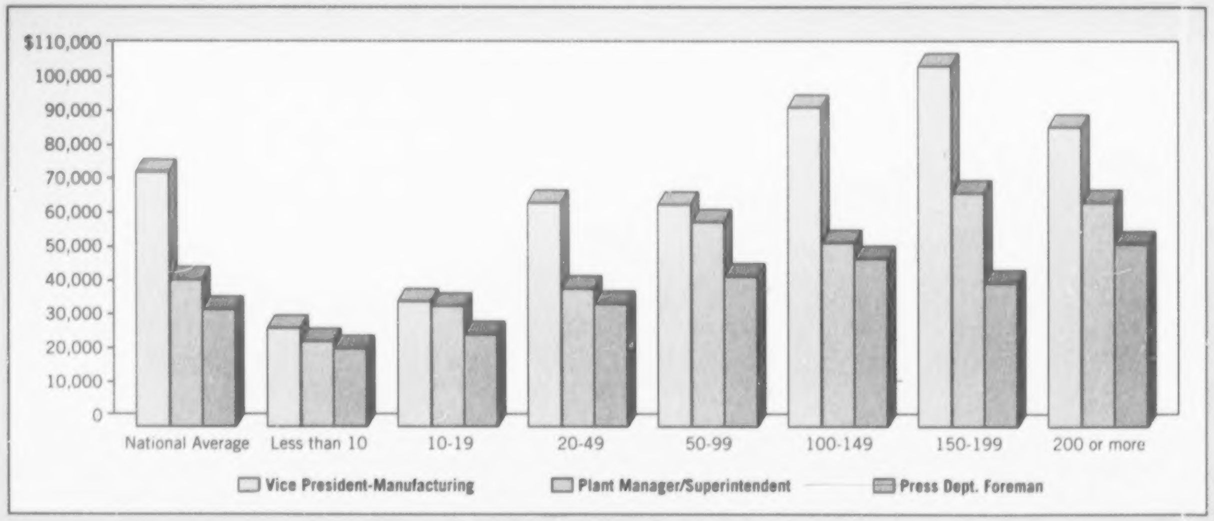


Charts and graphs by Lisa Hilgers

COMPILED BY GRAPHIC ARTS MONTHLY

	AVERAGE SALARIES BY EMPLOYEE COUNT							AVERAGE SALARIES BY COMPANY REVENUE					
	Less than 10	10-19	20-49	50-99	100-149	150-199	200 or more	Less than $500,000	$500,000-$999,999	$1 million-$4.9 million	$5 million-$9.9 million	$10 million-$19.9 million	$20 million or more
MANAGEMENT STAFF													
Chairman of the Board	$35,200	$52,000	$154,100	$175,400	$106,700	$ —	$196,100	$35,200	$44,300	$145,600	$168,300	$ 84,400	$199,900
President/Owner	41,200	65,500	98,600	126,900	167,900	178,800	148,600	38,600	54,900	91,800	128,800	178,100	170,500
General Manager	31,800	41,800	56,200	91,800	91,400	121,800	97,900	29,900	38,800	56,200	90,600	93,900	109,100
VP—Sales & Marketing	29,100	33,300	62,000	70,800	109,000	114,400	109,900	32,100	33,700	62,100	75,800	100,900	114,600
VP—Finance	23,700	34,000	62,200	77,700	96,800	111,900	88,000	34,500	39,000	55,000	64,300	102,400	97,100
VP—Manufacturing	29,100	37,000	66,100	65,600	94,200	106,400	88,400	70,800	31,500	57,400	69,400	94,700	91,800
OFFICE/FINANCIAL													
Controller	22,000	22,000	36,300	43,500	51,700	63,700	55,100	26,900	25,900	37,700	44,000	52,500	56,100
Estimator/Planner	23,600	29,200	31,000	40,100	40,600	48,700	39,200	22,200	26,500	32,700	37,700	42,200	42,300
Office Manager	20,200	19,800	30,100	32,800	36,100	45,600	37,600	19,800	20,000	28,400	33,100	36,800	41,700
Human Resources Manager	—	26,500	39,900	38,700	37,500	49,700	47,400	48,400	26,500	36,700	36,600	31,000	49,900
Purchasing Agent/Buyer	27,200	26,500	27,400	36,300	42,300	55,900	42,600	32,400	24,700	30,200	35,700	44,300	46,400
PRODUCTION MANAGEMENT													
Plant Manager/Superintendent	25,200	35,700	40,800	60,400	54,300	68,900	66,200	20,400	35,900	43,500	61,400	52,300	66,700
Production Manager	24,200	28,300	38,300	42,600	42,800	65,800	53,400	23,700	26,400	38,500	38,900	45,200	56,900
Quality Control Supervisor	—	14,200	26,000	33,700	38,300	44,500	41,000	42,200	15,700	28,500	29,300	42,500	41,800
Production Scheduler	18,300	26,500	20,700	35,300	39,000	32,600	37,000	25,900	21,300	26,800	32,900	36,000	36,900
DEPARTMENT FOREMAN													
Composition Foreman	20,400	23,500	29,400	35,500	35,200	34,700	38,200	21,200	23,000	30,500	31,700	37,800	35,400
Prep Department Foreman	22,600	26,100	35,100	42,200	44,000	42,200	47,200	21,900	25,400	34,300	41,700	49,200	45,600
Press Department Foreman	23,100	27,300	36,300	44,400	49,600	42,400	54,000	23,500	25,800	35,200	44,100	52,600	52,000
Bindery Department Foreman	16,900	20,300	29,000	37,000	35,200	41,300	48,200	19,300	18,600	27,300	37,400	40,800	47,000
Maintenance Foreman	15,000	—	37,200	31,400	41,200	39,400	44,800	32,800	—	32,000	40,000	38,800	43,500
SALES/MARKETING													
Sales Manager	30,800	28,400	44,600	69,200	66,700	72,300	81,100	32,400	29,900	46,700	49,100	74,500	80,100
Sales Representative	21,900	22,000	42,100	45,200	59,800	54,800	69,400	22,500	22,700	33,900	55,300	56,800	70,600
Customer Service Manager	20,700	19,100	26,800	30,100	40,100	34,500	44,300	21,000	21,700	26,000	32,700	38,800	41,700

HOW THREE JOB SALARIES VARY



KEY TO REGIONS

The nine geographic regions, as referred to throughout this survey:

New England (NE): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **Mid-Atlantic (MA):** New Jersey, New York, Pennsylvania. **South Atlantic (SA):** Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia. **East South Central (ESC):** Alabama, Kentucky, Mississippi, Tennessee. **East North Central (ENC):** Illinois, Indiana, Michigan, Ohio, Wisconsin. **West North Central (WNC):** Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. **West South Central (WSC):** Arkansas, Louisiana, Oklahoma, Texas. **Mountain (M):** Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Pacific (P):** Alaska, California, Hawaii, Oregon, Washington.

BENEFITS OFFERED

For the first time, GRAPHIC ARTS MONTHLY included a section about employee benefits in its annual salary survey. As the cost of providing benefits increases, and corporate profits level off or decrease in the current difficult economy, benefits are coming under greater scrutiny by employers and employees alike.

From the data collected this year, it is evident that—like salaries, as shown in the charts below—benefits increase with company size (space limitations preclude showing all the size-comparison data). While overall, 74% of the companies surveyed offer health insurance/HMO, about 60% of the smaller companies (those with less than 10 employees) offer this benefit. Furthermore, only 34% in this small-size category offer life insurance to employees, and 23% offer disability insurance.

The following is a list of benefits and, given in rounded percentages, the number of respondents offering each. For sake of comparison, the two columns at right show response rates from smallest and largest companies, in number of employees.

Benefit	**Total Resp.**	**Less than 10**	**200 or more**
Health/HMO	74%	60%	100%
Life Insurance	54	34	100
Disability	37	23	100
Dental Insurance	32	17	82
Merit Bonuses	31	21	50
Profit Sharing	21	10	54
Tuition Reimbursement	20	7	86
Retirement/Pension	19	8	50
401K Plan	16	3	86
Recreational Activities	13	5	79
Parent/Caregiver Leave	6	4	21
Subsidized Food Service	5	4	7

Note that the total exceeds 100% because of multiple responses; data based on responses from 528 respondents in the mailed survey.

Also, several other benefits were mentioned by respondents but represented such a small percentage that they were not included here; among them: scholarships for children, sabbatical programs, patent awards or royalties, and on-site childcare facility. An "other" category accounted for 6.1% total response, and 12.5% of the respondents gave no answer to the questions about benefits offered.

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A CAHNERS PUBLICATION AUGUST 1991

graphic arts monthly®

THE MAGAZINE OF THE PRINTING INDUSTRY

Once upon a time in an exhibition hall far, far away, the graphic arts industry gathered for PRINT 91

GAM 101 Ranking • Focus on Chicagoland • Small Shops, Savvy Upgrading

VOLUME 63, NUMBER 8

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graphic arts monthly

THE MAGAZINE OF THE PRINTING INDUSTRY

TOTAL CIRCULATION: 99,585

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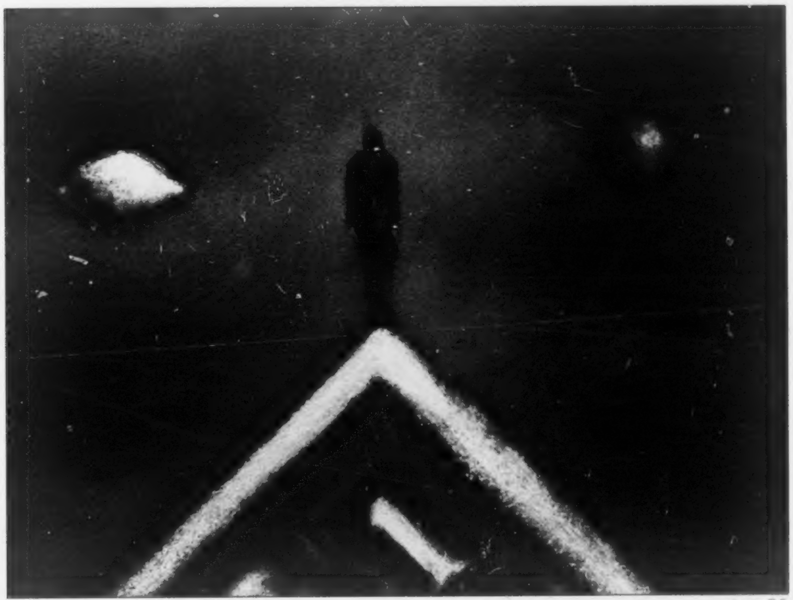

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Ronald C. Andriani

Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken, Lisa Cross

Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Jeff Rothstein

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager
Richard Negri (212) 463-6827

Business Manager
Jerry Arotsky (212) 463-6603
Facsimile: (212) 463-6653

Contracts Coordinator
Jeffrey Rothstein (212) 463-6608

Production Manager
Daniel Coakley (212) 463-6545
Facsimile: (212) 463-6560

Promotion Manager
Dorian Torregrossa

Research Manager Angela Venturino

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Reprints Carol Bien (708) 390-2235

Circulation Manager
Carla Keller (303) 398-7623

Subscriptions/Back Issues
(800) 637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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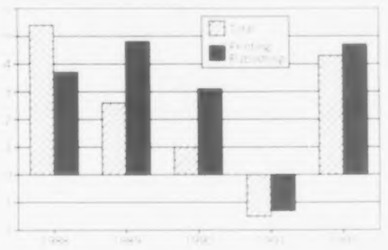
Industrial Production Still Slows

Industrial Production



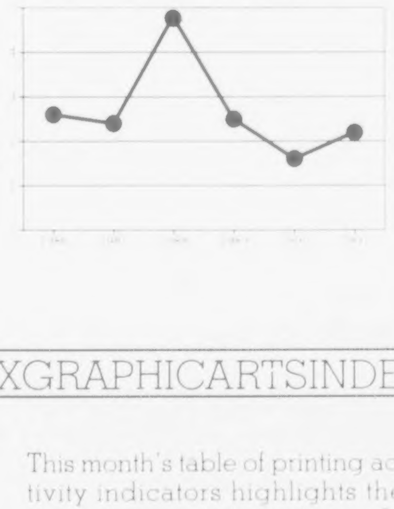
The latest industrial production data from the Federal Reserve Board shows that the printing and publishing industry has yet to bottom out. Compared to last year, the production index fell 1.1% in the first five months of 1991. This decline is expected to continue through the end of the year.

By 1992, the general economic recovery that everyone, from the most optimistic government economist to the most pessemistic private businessperson, should be in full force. The forecast calls for a 1.3% decline in 1991 followed by a 4.7% gain in 1992, which indicates quite a dramatic recovery for such a large industry, all things considered.

True to past form, printing and publishing still outperform the outlook for all industries; total industrial production is forecast to drop 1.5% this year and rise 4.3% next year. Periodical and book production remains the best-looking printing and publishing sector. Meanwhile, job printing production is experiencing its slowest period since 1986, and newspaper output is falling into a steeper slump.

Print Machine Prices Up, Barely

Printing Trades Machinery



For those printers planning to purchase new equipment, *now* seems to be a good time. Not only are interest rates at reasonable levels, but equipment prices are also beneficial.

Prices of printing trades machinery, as measured by the producer price index, rose a slight 1.6% last year. That represents the slowest rate of increase in over a decade. As demand for equipment is low, equipment manufacturers have been unable to increase prices substantially, and, in fact, have been offering incentives of one kind or another in recent months. In the first five months of 1991, the price index increased 1.5% above the same period in 1990. With this trend continuing through the end of the year, expect price gains to be in the 2%—2.5% range over the next few years.

GRAPHIC ARTS INDEX

This month's table of printing activity indicators highlights the sluggishness of the industry. In particular, the newspaper sector continues to suffer from a slowdown in print retail and classified advertising. Job printing output is also in a bit of a slump. While total industry output is down, production and materials prices are also low. Paper prices are headed for a slight 0.9% gain in 1991. As the economy is expected to rebound in the second half of the year, the printing industry should start to see a turnaround in 1992.

PRINTING ACTIVITY INDICATORS

				Annual % Change			
Industrial Production (1)	**Apr 90**	**Mar 91**	**Apr 91**	**1990**	**1991**	**1992**	**1993**
Printing & Publishing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Newspapers	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.9
Periodicals, Books, Cards	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Job Printing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.0
Shipments (2)							
Printing & Publishing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Newspapers, Books, Periodicals	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9.8
Other Publishing & Printing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Producer Prices (3)							
Commercial Printing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Printing Trades Machinery	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Printing Ink	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Paper	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Business Forms: New Directions

As business forms growth has slowed, distributors are offering more products and services.

By Bill Esler
Midwest Editor

The business forms industry has suffered the double whammy of a weakened economy, and changing technologies draining away chunks of its primary markets. Responding to the downturn has been painful. For example, last fall Moore, the nation's largest forms manufacturer, reported a 90% drop in earnings, as it paid charges related to an 1,100-person layoff. Numerous other forms companies have announced layoffs, and acquisitions are on the rise. Business does seem to be on a rebound now, and the future looks rosier, with the NAPL reporting its forms printer correspondents seeing a 5.4% sales rise during the first part of this year.

The business form, a document designed to collect information, is generally produced on specialized presses. These feature marginal punching and perforation, printing roll-to-roll or roll-to-pack (zig-zagged stacks of forms), so the form can be run afterward through computer printers. The form itself consists of the fixed information (rules, captions, the preprinted part) and the variable information that is filled in by hand or machine.

Use of many familiar forms is waning. Credit card slips, bank machine receipts, and other forms are being supplanted by blank register tapes. The multipart forms with carbon interleaves are supplanted by the nation's six million laser printers, able to print the form and other data in one pass. And electronic transactions of all sorts eliminate the use of forms in collecting and conveying information.

These business problems have been worsened by the economic downturn. But forms firms are not taking it lying down. Well served by trade groups—e.g., the National Business Forms Association (NBFA), the International Business Forms Industries (IBFI), and the Business Forms Management Association (BFMA)—the forms industry is going through massive adjustment to retain a role in a dramatically changing marketplace.

Combatting the rising use of blank register tapes, for example, forms makers now market register tapes with colorprinting along the margin. As with many areas of forms printing, the substituted product doesn't have the same value added as the product it replaces.

Carbon interleaved forms have declined in popularity as lighter and cheaper carbonless forms increase in usage. Forms presses are designed for either long-run stock forms (standard size with no special logos printed on them), or custom forms (special sizes or imprinted with corporate logos). A continuous form will be collated at the end of the run, to bring the multiple parts (with or without carbon interleaves) together. The noncontinuous unit set, or snap set, is also declining in popularity, according to industry sources.

The change has been well documented by the IBFI, a major source of data for forms manufacturers. The PIA affiliate last year produced "Perspective 90: The Present and the Future of the North American Forms Manufacturing Industry." In over 30 years of data collection, IBFI

CASE SEALER
TRUCK DRIVER
SADDLE CREEK
SADDLE CREEK
Batch #
Date
Charges
Quantity
$
Department
046301
Unadvertised SPECIAL
PROPOSAL
INITIALS
NB 522
STAPLING ERROR
DAMAGE
RE-WORK
NAME
DATE
Total

Peter Neumann

shows the decided swing from unit sets to continuous forms.

"There's been a change in product mix," says Bob Nevin, president of Reynolds & Reynolds, Dayton, Ohio. "Continuous forms subsitituted for unit sets, and now cut sheets are substituting for continuous forms."

Cut sheets are readily printed on commercial presses as well as forms presses, adding a new group of competitors in one of the industry's growth areas. Any printer can print them. Though laser printers can print the fixed and variable information in a single swipe, generally laser printers don't apply color to make an attractive form. So demand for preprinted cut sheet forms will continue to rise.

Forms firms can turn the tables on commercial printers entering their markets, by adapting presses to commercial work. As a color-conscious business community drove forms printers to add more color units, they can now print quality color work, too. Some do commercial nonheatset jobs, such as placemats. The marginal holes can be slit off, or the processing sections removed, turning them into roll-to-sheet presses. Some shops have added UV or gas-fired driers, and turn out glossy color direct mail items, often printing roll-to-roll or roll-to-pack, with marginal holes for feeding and imprinting through addressing systems.

"That's being done extensively," notes AM Schriber's Thomas Carroll. Preparing direct mail for computer imprinting is a lot like forms runs. "The forms printer is really well versed in that." But forms presses generally are one-sided printers, not blanket-to-blanket. So their entree to commercial web work will be in limited fields, like direct mail, where the presses have other advantages, too.

The forms industry consists of three major groups: big forms manufacturers, independent

Typical Products

Continuous Custom & Stock Forms
Sales Books
Unit Sets
Fanfold Forms
Carbonized or Carbon-interweaved

Typical Users

Business Establishments of all sizes
Utilities
Financial Services
Retail Trade
Computer Services

forms makers and their dealers, and purchasers of forms. The three categories cross over at times. Of some $7.8 billion in forms produced in 1990, the vast majority (70% or more) are produced and sold by the big manufacturers with captive sales staffs, direct to purchasers.

Forms printing is concentrated. The 20 largest firms produce 70% of the volume; the top 50 do 85%, according to GATF's 1989 study of the forms industry. All told, about 450 firms operating 600 plants are the nation's forms specialists, with another 125 firms doing forms as a minor part of their business. Commercial and quick print shops produce 4% of the nation's forms volume. Independent forms dealers probably number around 2,500, and sell forms as a major line. Each of the independent forms manufacturers that sells through dealers has, typically, 500-800 active distributors.

BY NOT HAVING A DIRECT SALES STAFF, INDEPENDENTS HAVE LOWER SALES COSTS, BUT LOWER MARGINS, AS WELL.

By not having a direct sales staff, independent forms makers have lower sales costs, but lower margins, as well. (The median forms distributor achieved a gross margin of 31.5%, and generated $186,000 in sales per employee, reports the NBFA). A smaller avenue of sales, direct mail, is projected to grow at twice the rates of total forms growth for the next few years. Captive and independent forms manufacturers have also entered the direct mail arena as a result.

In recent years, the dealer network has expanded in influence, if not market share, representing independent forms makers who sell only to the trade. Forms dealers and the purchasers of forms have taken on an added role, of late, in designing forms with desktop programs. As many as one-third of forms dealers now generate customer designs and transmit them electronically to the manufacturers, either for output through an image setter, or to be electronically adjusted to fit the specifications, repeat lengths, etc. of the pressroom before output.

"The smart forms printers will work with the users, who may design the forms, but transmit it directly to the vendors," says Norm Chilton, a forms consultant and former president of the 2000-member BFMA.

Rising paper prices for 15-lb forms bond, electronic data interchange, and data gathering at "forms on the screen" of computer workstations have also hurt business. While paper costs have stabilized, electronic data interchange and electronic forms data gathering are expected to dampen forms usage. The implications of this trend were examined in two reports: Printing 2000, and IBFI's "The Challenge of Electronic Data Interchange." The Electronic Data Interchange Association reports over half the Fortune 500 companies use EDI for business operations, especially invoicing and purchasing.

Software for designing computer screen forms, a trend in its infancy, can also generate original artwork for transmission to the forms printer.

"Forms change all the time," notes Lisa Burton of Graphic System West, Ventura, Calif. Burton is also a member of the BFMA, and a certified forms consultant. "It's too expensive to alter forms that are fixed in cement once you get them printed. So people are looking for ways to alter their forms quickly, and cost-effectively. And they're doing it with cut sheet forms, and electronic forms. That's the future."

The NBFA, with over 2,300 member companies, services independent forms printers and their dealer outlets. The dealers do more than just spin through a sample book and take orders. They now have software for creation of forms. "We have a very large special interest group for electronic design," says NBFA's Marge Green. "Some of them are quite advanced. Many of them even have imagesetters."

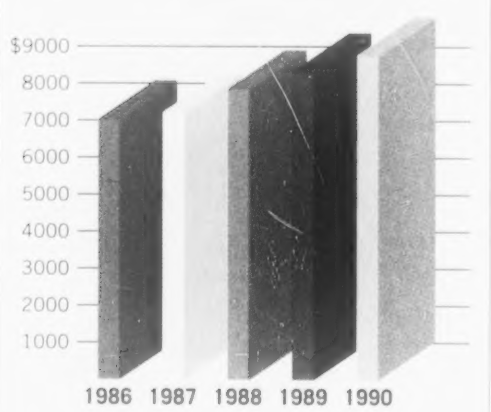
According to Green, distributors have about 23% of the market, and holding, versus 70% with direct selling forms manufacturers. "The whole forms market has flattened out," she notes. To combat this, business forms dealers offer an expanding array of products (labels, direct mail, promotional printing, including novelties, and commercial work. "Quite a few are trying to specialize in the new services they can provide in relationship to the products."

With distributors taking orders for a wider range of offerings, their forms suppliers have an opportunity to enter new markets. For Block Graphics, a Portland, Ore. independent forms manufacturer, this has meant a new plant and equipment.

"We manufacture business forms, envelopes, letterhead, laser cut sheets, and commercial printing," says Block's Dick Weigand, vice president of sales and marketing. Operating three plants in Portland and one in Los Angeles, Block has been driven

Business Forms

1990 Print Sales: $8,754 (millions)



($ in millions)

Business Forms

Rank	Company .... Sales in millions*	
1	Moore Business Forms Inc.	$1,215.0
2	Standard Register Company	460.0
3	UARCO Inc.	455.0
4	Bowater Communication Papers	280.9
5	Reynolds & Reynolds Co.	260.0
6	Duplex Products	253.0
7	New England Business Service	145.0
8	American Business Products	140.0
9	Wallace Computer Services	135.0
10	Data Documents Inc.	120.0

*Note: Preliminary Ranking

Source: [illegible]

by its customer base, independent forms distributors, to expand into new markets.

"The first move was into the envelope business," says Weigand. "There was a perceived need on the part of our distributors that encouraged us to imprint ready-made envelopes. Then later on, as we got into it, we found we needed to manufacture the envelopes from the ground up." Now Block Graphics operates a separate envelope converting plant, as well as a 45,000-sq-ft forms printing plant, and a 32,000-sq-ft commercial printing plant centered around a two-color Heidelberg press, the company's newest addition. Under construction in Los Angeles is a 50,000-sq-ft plant for forms, commercial work, and envelopes.

Distributors have driven the move into envelopes and commercial work, says Weigand. "We may be a bit unique in that we constantly seek the counsel of our distributors." Meetings are held twice annually in Portland. Like other independent manufacturers, Block Graphics is not that well known to most end users of its products, who know their local distributor as the source. But some of the larger volume end users do meet with Block Graphics to review production issues, and are aware of the behind-the-scenes supplier. Block markets 100% through distributors.

Weigand is chairing a research committee, producing a report called Futrends, that will be issued by the NBFA in October. It will try to identify the role of the independent forms distributor in the year 2000.

Paris Business Forms, which sells through dealers, has been adding to its outlets, which grew from 1,700 to 2,500 in the past year. "Anybody in the business who is trying to expand has to add on new products and capabilities," says Joe Massucci, the firm's marketing manager. "It's the only way you can satisfy most of your customers." Paris will produce commercial jobs on its forms presses, as customers require. "Sometimes it's just putting an adapter or a perf bar on a regular press, and you can go from a continuous to a cut sheet product," says Massucci.

New England Business Service, Townsend, Mass., has built its forms business on direct-mail sales, but now has branched out with a division to sell forms (DFS Business Forms), which sells through office products dealers, independent forms distributors, computer shops, accountants, and printers.

Duffie Graphics, formerly Byrd-Duffie Forms, has made its strength selling through commercial print shops. Its printer dealers, numbering around 2,000, have allowed it to maintain a stable business, as print customers look for forms at their regular printing outlet. "We never witness this recession," says Gerald Duffie, president. "Our business has been good." A slight slowdown in February and March was the only sign of the down economy. Unlike some forms printers, Duffie doesn't do commercial work, since he would be competing with his principal sales outlets.

Another approach to markets is vertical integration: offering not just the forms, but the software and the hardware to consume them. Reynolds & Reynolds offers equipment and software, along with the consumable forms, specializing in auto dealers as a market. Wallace Computer Services and Moore both make their own carbonless papers, and also offer finishing and decollating equipment for customers' printed continuous forms. Wallace recently introduced a unit for finishing forms printed by its customers' high-speed laser printers.

The integration of forms and computers will provide opportunities in the marketplace. Forms management software, setting up turnkey computer forms systems, and consulting and training services for smaller customers, will be avenues for maintaining the forms market, suggests the IBFI report, Perspective 90. But IBFI's conclusion is perhaps the most salient point: forms makers can continue to sell traditional products, but must refocus on customer service in order to survive and prosper. ▤

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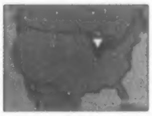
The Heart of The Industry



Carl Sandburg called it "city of broad shoulders, stacker of wheat, hog butcher to the world," and other poetic epithets designed to convey that Chicago, any way you want to measure it, is an industrial and mercantile heavyweight. That was true in 1916 when Sandburg wrote it, and it's true now.

One field of endeavor in which Chicago is in some ways not merely the heavyweight is the printing industry. Some of this is due to its position as the premier city of the Midwest; the regulations and pricing structure of the United States Postal Service (and of the Post Office Department before it) dictate that printed material to be distributed all over the country can be most economically produced somewhere near its middle. Satellites and remote printing have changed some of that, but Chicago's importance to the industry remains.

As the population and industrial density in surrounding areas continue to grow [see "The New Chicago Loop," *GAM*, September 1989], it becomes increasingly difficult to say exactly where greater Chicago leaves off and the rest of the East North Central region begins. For this article we have tried to look at it fairly narrowly, though we have, of course, been forced to go beyond Cook and DuPage counties, the ones actually within the city limits.

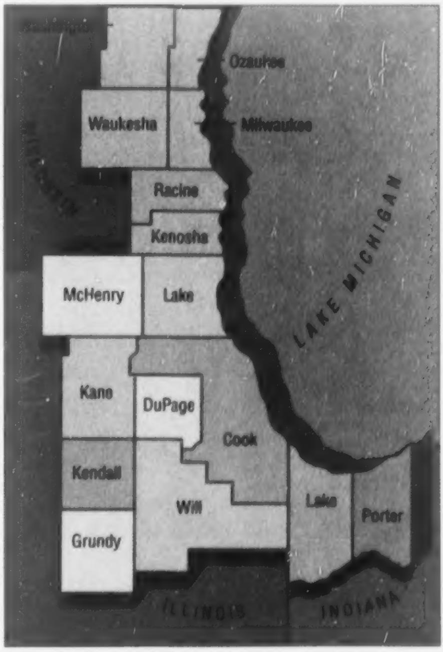
Although the recession in the Northeast and the Southwest have gotten more national press, it has clearly been a little rough in Chicago over the past couple of years. More than 60% of those surveyed reported a drop in sales, from 1989 to 1990. Profitability, however, possibly because of cost-cutting measures, was up for 1990.

In comparing our figures for Chicago with those for New York, the other singular city studied in this series, we find some interesting contrasts. Both for 1989 and 1990, the percentage of Chicago printers reporting running at a loss was less than half that in New York. While neither city had high Perception Index numbers, twice as many Chicagoans thought business was up than New Yorkers. (Three times as many New Yorkers thought it was down.)

Inside this detachable foldout form we present a general profile of the graphic arts industry in the Chicago metropolitan region, a close look at commercial printing, demographic data, and listings of leading printers in major markets. Data sources are given on the charts and tables.

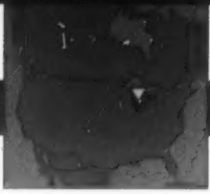
The most revealing portion presents survey results among commercial printers. It shows sales changes from 1989 to 1990, the extent of those changes, profitability and capacity comparisons, and a business perception index.

Reprints of this installation of Print Market Trends may be ordered from Carol Bien, Cahners Publishing, Reprint Department, 1350 E. Touhy Ave., Des Plaines, IL 60018. ⊟



Jean Wisenbaugh

By Peter Johnston
Special Projects Manager



Regional Overview

While Chicago itself is sprawling, the printing industry remains remarkably compact given its influence here. This pattern is changing, but our figures show almost one-third of the city's printing sites in Cook County alone, the very heart of Chicago. A look at the educational attainment demographics shows characteristic urban pockets of affluence (high rates, especially for college graduates) and poverty. Unlike New York, there seems to be no correlation between these numbers and printing activity.

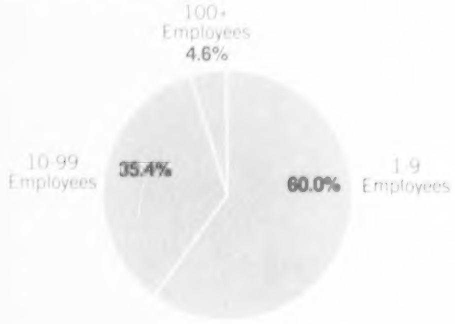
POPULATION AND PRINTING SALES

County	Printing Sites	Population
ILLINOIS		
Cook	976	5,297,290
Du Page	166	727,700
Kane	39	305,800
Lake	58	480,200
McHenry	17	162,400
Will	17	338,400
TOTAL, ILLINOIS	**1,273**	**7,312,050**
INDIANA		
Lake	29	491,700
Porter	9	123,100
TOTAL, INDIANA	**38**	**614,800**

County	Printing Sites	Population
WISCONSIN		
Kenosha	12	120,000
Milwaukee	160	932,400
Ozaukee	8	69,100
Racine	16	172,300
Washington	7	89,400
Waukesha	57	288,800
TOTAL, WISCONSIN	**260**	**1,672,000**
TOTAL, GREATER CHICAGO	**1,571**	**9,589,850**

Source: U.S. Dept. of Commerce, Bureau of the Census

Plants by Employee Count



Source: GAM 1990 Plant Equipment Market Profile

Charts and graphs by Lisa Hilgers

Educational Attainment

County State	High School Graduates	College Graduates
U.S. Average	66.5%	16.2%
Cook, IL	64.3%	17.1%
Du Page, IL	83.1%	29.0%
Kane, IL	70.6%	16.7%
Lake, IL	77.6%	25.1%
Lake, IN	63.3%	10.1%
Milwaukee, WI	68.5%	15.7%
Will, IL	70.2%	14.3%

Source: U.S. Department of Commerce, Bureau of the Census

Concentration of Business by Type

Chicago printers tend to be somewhat larger than the national norm. This index, based on various issues of PIA's Financial Ratio Studies, shows a somewhat startling factor of 54%. We also, based on the same data, see a slightly slower-than-average growth rate for Chicago printers.

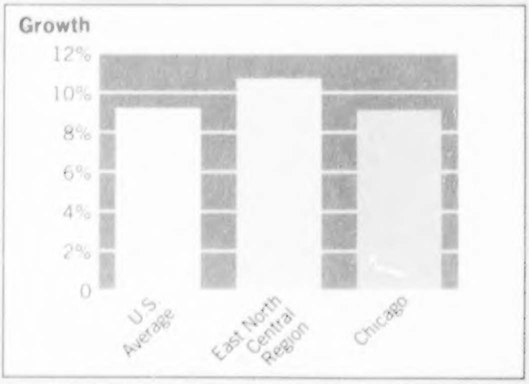
Size Index	
U.S. Average	100
East North Central Region	97
CHICAGO	154

(Based on average sales value, 1980-1989)

Profitability Index	
U.S. Average	100
East North Central Region	104
CHICAGO	128

(Based on income/assets, averaged, 1980-1989)

Growth



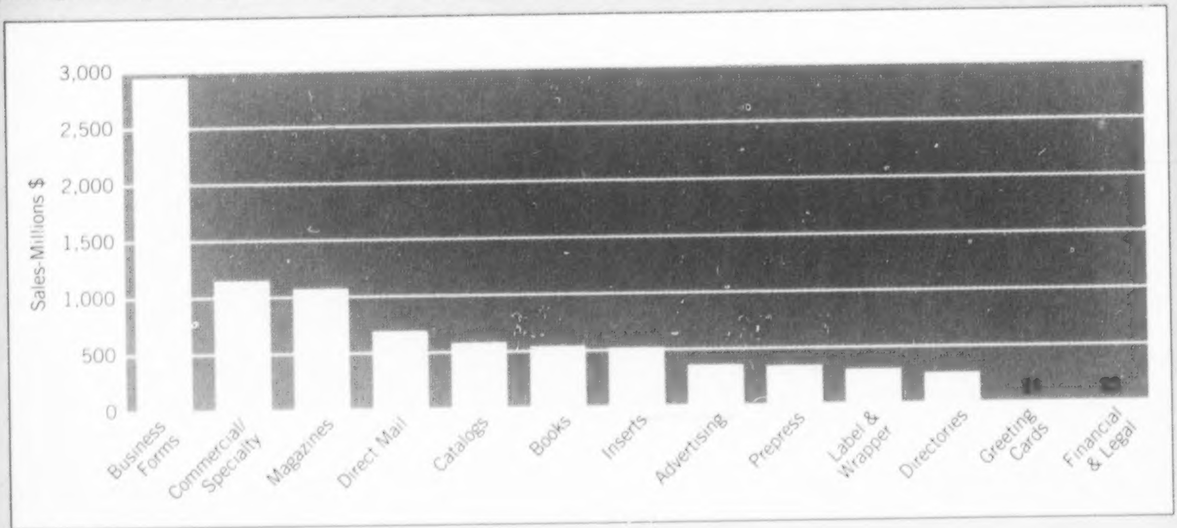
(Estimated compound annual growth rate of printing shipments, 1980-1989)

Source: Printing Industries of America Financial Ratio Studies

Market Profile

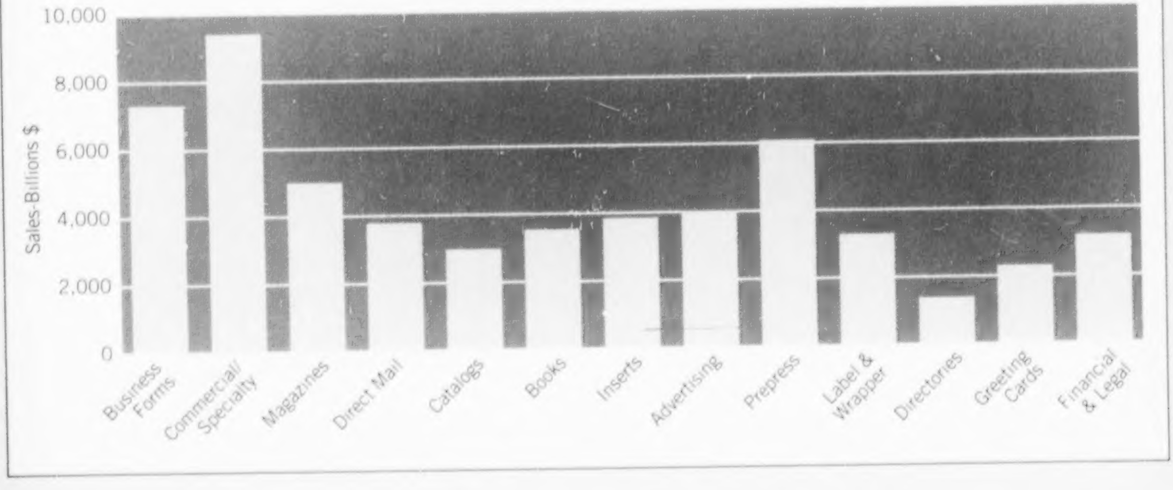
Ranking of Product Segments . . .

Sometimes geography is destiny. Business forms is in general an important market in the Chicago area, but it is the presence of one company, Moore Business Forms, that gives the category its top-heavy edge. Otherwise, Chicago's printing industry is weighted toward big-shop, long-run, nationally-distributed products, and lots of them: magazine printing, at number three, still represents more than $1 billion in annual revenues in this geographic region. Still, as one printer noted, many are "redefining their role in the market, to increase sales, and are becoming multilevel."



. . . Compared to National Totals

Otherwise, just as in the nation as a whole, commercial/specialty printing is right at the top of the list. The big dropoff comes in greeting cards and business forms—again a function of geography. The big greeting card manufacturers—and Wall Street—are located elsewhere. In general, price, delivery and technology top the list of printer concerns. These figures, it should be noted, are based on a 1988 survey of major printers, the most recent available. The revised research, due out shortly, will likely paint a different picture of the Chicago, and national, printing industry.



Leading Printers in the Region

COOK COUNTY ILLINOIS
American Envelope, Chicago
American Printers & Litho, Chicago
Bagcraft Corp. of America, Chicago
Collins, Miller & Hutchings (Wace), Chicago
Columbia Graphics, Chicago
R.R. Donnelley/Chicago, Chicago
R.R. Donnelley/Financial, Chicago
E&D Web Offset, Cicero
Emergency Bus. Forms/General, Niles
Enteron Group, Chicago
Esselte Mito (Esselte), Bedford Pk.
FCL Graphics, Harwood Heights
Fort Dearborn Litho, Chicago
Graphic Converting, Chicago
Graphic Products, Chicago
Jahn & Ollier (Wace), Chicago
Johnson & Quinn, Chicago
Kieffer-Nolde, Chicago
Liberty Photo Engraving, Chicago
Masterpiece Studios, Cicero
Merrill/Chicago, Chicago
Neely Printing, Chicago
Nobart Inc., Chicago
Reilly Graphics (Wace), Chicago
Revere Graphic (Enteron), Chicago
Schiele Graphics, Chicago
Service Web Offset, Chicago
Stone Container, Chicago
Stuart-Hooper Bus. Forms, Chicago
Superior/Premier (Enteron), Chicago
Viking Enterprises, Chicago
Wicklander Printing, Chicago

NORTH SUBURBAN
AGI Incorporated, Melrose Park
Alden Press, Elk Grove Village
Berlin Industries, Addison
Black Dot (Devon), Crystal Lake
Booklet Binding, Broadview
Bradley Printing, Des Plaines
Brookshore/Banta, Elk Grove Village
Carlith (Devon), Carpentersville
Carqueville, Elk Grove Village
Champion Bus. Forms, Glendale Hts.
J.J. Collins' Sons, Melrose Park
Computer Color (Enteron), Hillside
Continental Dataforms, Elgin
Continental Web Press, Itasca
CST Group, Wheeling
Distributors Stock Forms, Addison
Duplex Products, Sycamore
Elgin Business Forms, Elgin
Fenton Press, Addison
Form Service, Schiller Park
Forms Corp. of America (Whitestar Graphics), Spring Grove
Gaylord Container, Deerfield
General Business Forms, Skokie
Graftek Press (Devon), Woodstock
Inland Litho, Elk Grove Village
A.J. Kennedy & Co. (Graphic Industries), Elmhurst
Kukla Press, Elk Grove Village
Kukla-Webmasters, Elk Grove Village
Lake Book Mfg., Melrose Park
Lancaster Press, Melrose Park
LeFebvre Intergraphics, Des Plaines
Lehigh Press/Cadillac, Broadview
Lehigh Press/Colortronics, Elk Grove Village
Lithocolor Press, Westchester
Lord Label & Mfg., Skokie
Mercury Press, Forest Park
Meyercord Co., Carol Stream
Mid-City Litho, Lake Forest
Moore Business Forms, Glenview
Nosco, Inc., Waukegan
OEI Business Forms, Itasca
Packaging Corp. of America, Evanston
J.S. Paluch Company, Schiller Park
Perfect Plastic Print, St. Charles
Print-O-Tape, Libertyville
Rand McNally, Skokie
Redson Rice, Elk Grove Village
Response Mktg./Moore, Libertyville
Ringier America, Itasca
Rittenhouse, Park Ridge
Schawk Inc., Des Plaines
Screaming Color, Itasca
Segerdahl Corp., Wheeling
Sleepeck Printing, Bellwood
Strathmore Company, Geneva
Tech Web Inc., Wheeling
Treasure Chest, Elk Grove Village
UARCO, Inc., Barrington
United Computer, Elk Grove Village
Wallace Computer, Hillside
Wallace/Business Forms, Hillside
Wallace/Wallace Press, Hillside
Weber Marking, Arlington Heights
Wessel Company, Elk Grove Village
Whitestar Graphics, Spring Grove
Wright Business Forms, Broadview

SOUTH SUBURBAN
Apollo Label (Wallace), Worth
Combined Comm. Services, Lisle
R.R. Donnelley/Dwight, Dwight
Fisher Printing, Bridgeview
Jet Lithocolor, Downers Grove
MPI Label Systems, University Park
Northern Bank Note, Countryside
Solar Press, Naperville
TimeMed Labeling Sys., Burr Ridge

For current sales revenue, market segment, and ranking data, see 1991 edition of *Printmarkets*, Trade & Technology Press, Stamford, Conn. Preliminary information.

How Printers Are Doing

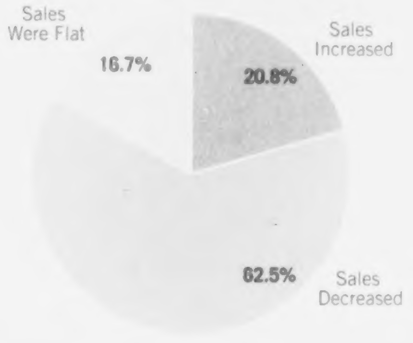
Based on a survey of firms in the region, conducted by Cahners Publishing

Profile of Respondents

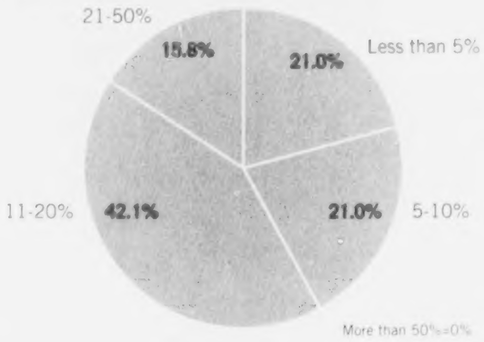
Commercial printers in the greater Chicago metropolitan area responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. The following data is as reported by survey respondents; 1990 gross sales were estimated.

Gross Sales in 1990		# of Employees	
Less than $500,000	4.5%	1-4	4.5%
$500,000-749,999	15.9%	5-9	11.4%
$750,000-999,999	6.8%	10-19	45.4%
$1 million-2,499,999	40.9%	20-49	27.3%
$2,500,000-4,999,999	15.9%	50-99	11.4%
$5,000,000-9,999,999	13.6%	100+	0%
$10 million or more	2.3%		

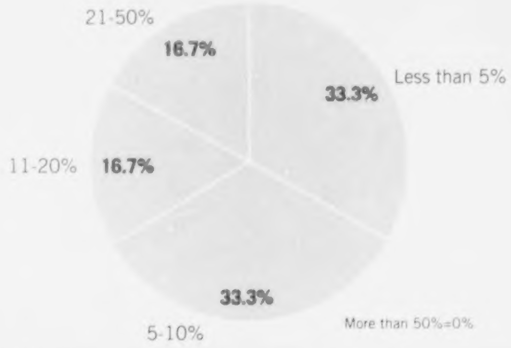
How Sales Changed, 1989 to 1990



If Sales Increased, How Large Was Increase?

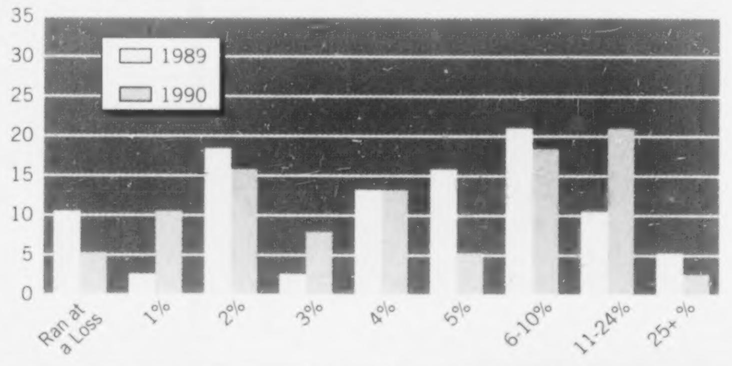


If Sales Decreased, How Large Was Decrease?

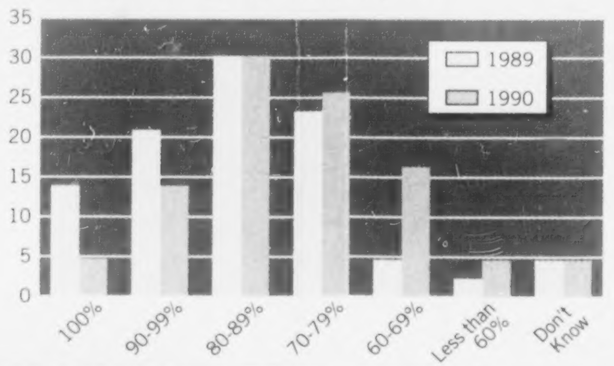


PROFITABILITY & CAPACITY

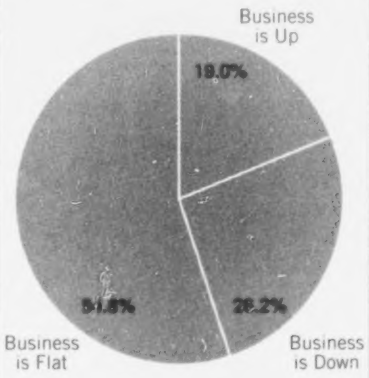
Profit as a percentage of gross sales



Operating percentage of plant capacity



Perception Index



Comments by Printers

- We are growing out into the shorter run area, under 20,000 copies.
- Specialty printers seem to have an advantage over commercial and instant printers.
- There seem to be a lot more quick-print operations.
- While the dollar value may remain the same or increase slightly, the actual number of jobs (work committed) is declining.
- Competition has grown so much that available business is spread over a bigger number of companies. Overall business seems to be stable.

BEST AVAILABLE COPY

THE GAM 101

Fighting Recession

Thirty-three companies posted sales volume gains of 10% or more, a slight dip from 1990.

For the second consecutive year, the general slowdown in business activity continues to have negative effects on North America's leading printing companies.

The number of companies in our 1991 ranking of the top 101 printing companies reporting declines in sales revenues has increased. The results of the annual industry survey revealed that 33 companies posted sales volume gains of 10% or more, a slight dip compared to the 40 companies in 1990. By contrast, in 1989, more than half reported two-digit percent gains in sales revenues.

Also increasing is the number of companies with either no gain or a negative percentage change in year-to-year sales comparisons; the count went from 20 last year to 28 this year. The remaining 39 on the main GAM 101 list posted gains of 9% or less.

However, lest we misinterpret this slowdown for a major business slump, it should be pointed out how solid the North American printing base is, and how decent its fiscal performance is, as measured in terms of annual sales, particularly when ~~compared to~~ other large industries. Major players in many other fields would be proud to have posted such gains in fiscal 1990-91 over fiscal 1989-90.

Data for virtually all the listings were obtained from the companies themselves, most often in response to a mailed questionnaire, but sometimes obtained by telephone and facsimile machine. In a few cases, sales figures had to be estimated because of accounting practices, nondisclosure policies, or because recent major acquisitions made simple sales-figure comparisons impossible or meaningless.

Readers should note that direct comparisons of company sales figures and performances are not advised; some reasons are obvious—commercial printers include billings for paper while publication printers do not—and others relate to unusual events such as acquisitions or divestitures, reporting methods, and changes in fiscal reporting periods.

Respondents are always asked for the most recent fiscal year figures. Also, currency conversions were necessary for Canadian firms; for this, a common factor was applied throughout.

Finally, in certain closely integrated operations, it remains impossible to separate printing revenues from other income, which blurs direct comparisons.

Despite these necessary qualifications, the 1991 GAM 101 list stands as the industry's best ranking of major printing firms, given the constraints of time and the privately-held nature of the industry. Some familiar names no longer exist; others asked not to be included.

Special thanks to Associate Editor Lisa Cross for her tireless efforts compiling the 101; others heavily involved were Editor Roger Ynostroza and Art Director Karen Lehrer.

If the detachable 1991 GAM 101 double-gatefold form facing this page is missing, send $5.00—payment with order, please—to Carol Bien, Reprint Services, Cahners Publishing Company, 1350 E. Touhy Ave., Des Plaines, Ill. 60018.

Coco Masuda

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GAM 101

Official Industry Ranking Of The Top Printing Firms

This detachable double-gatefold form contains the 1991 official ranking of the 101 largest printing companies in North America, ranked by sales volume for their most recently completed fiscal year, along with salient information (ranking by employee, number of employees, types of press units, primary products, and so on) for each company that's listed.

In addition, there are listings of the top business forms printers, greeting card manufacturers, and color trade shops. These rankings are maintained separately in an effort to avoid distortion of the main list, which concentrates on commercial printers and publication-type printers.

Data for virtually all the listings were obtained from the companies themselves. Very few companies projected their sales figures or offered estimates; if so, it was either due to accounting practices or recent acquisitions. For Canadian companies, a single currency exchange rate was applied.

A word of caution: use of the data to make direct comparisons can be very misleading, even though every effort has been made to exclude nonprinting revenues. The biggest discrepancy: commercial printers generally include billings for paper, while publication printers customarily do not. These qualifications notwithstanding, we believe the GAM 101 ranking to be the best available overview of the industry's leaders.

Coco Masuda

Additional copies of the 1991 GAM 101 are available for $5.00 each; send payment with order to Carol Bien, Reprints—Cahners Publishing, 1350 E. Touhy Ave., Des Plaines, IL 60018.

RANKING BY EMPLOYEE

1	R. R. Donnelley	30,000
2	Deluxe Corp.	17,174
3	Quebecor Printing	10,500
4	Lawson Mardon	7,500
5	Arcata Graphics	7,500
6	World Color Press	6,000
7	John H. Harland	5,600
8	Ringier America	5,300
9	Quad/Graphics	5,000
10	Southam Graphics	4,100
11	Sullivan Graphics	4,060
12	Banta Corporation	3,700
13	Clarke American	3,391
14	Jostens	3,500
15	Treasure Chest	3,200
16	Continental Graphics	3,200
17	Brown Printing	3,100
18	Graphic Industries	2,783
19	Western Publishing	2,500
20	Trans-Continental	2,471
21	American Signature	2,400
22	Ameriscribe Management Services	1,900
23	Cadmus Communications	1,820
24	Perry Printing	1,750
25	Bowne & Co.	1,700
26	Webcraft Technologies	1,600
27	Courier Corp.	1,402
28	Mack Printing	1,400
29	Engraph	1,370
30	Valassis	1,207
31	Stevens Graphics	1,200
32	Instant Web Companies	1,200
33	Taylor Publishing	1,200
34	Shorewood Packaging	1,100
35	Bertelsmann	1,100
36	Judd's	1,066
37	Publishers Press	1,046
38	Lehigh Press	1,000
39	United States Banknote	980
40	Ivy Hill	970
41	Queens Group	918
42	Merrill Corp.	850
43	Serigraph Inc.	820
44	Graphic Arts Center	800
45	Sheridan Group	770
46	Fleming Packaging	750
47	Hart Graphics	750
48	Shea Communications	725
49	Graphisphere	705
50	Alden Press	700
51	Edwards Brothers	700
52	Combined Communication	650
53	Webcrafters	630
54	K/P Companies	625
55	Waverly Press	610
56	Alford Industries	600
57	Solar Press	600
58	Prolitho	600
59	Keller-Crescent	560
60	Moebius Printing	559
61	Gulf Printing	530
62	Meehan-Tooker	530
63	Graftek Press	527
64	Case-Hoyt	500
65	Petty Co.	500
66	George Rice & Sons	484
67	Spencer Press	470
68	Cairn Capital	454
69	Anderson Lithograph	450
70	Wisconsin Color	450
71	Continental Web Press	425
72	Sleepeck Printing	425
73	Arandell-Schmidt	413
74	AGI Incorporated	408
75	Avanti Press	400
76	Northeast Graphics	400
77	Japs-Olson	400
78	Universal Printing	400
79	Williamson Printing	390
80	Henry Wurst, Inc.	370
81	Century Graphics	360
82	Fort Dearborn Litho	360
83	Tech Web	360
84	A.D. Weiss Lithograph	352
85	Noll Printing	340
86	L.P. Thebault Co.	330
87	Neenah Printing	315
88	Madison/Graham Colorgraphics	300
89	Danbury Printing	300
90	Babn Technologies	300
91	S. Rosenthal & Co.	300
92	Acme Printing	280
93	Printco	265
94	Daniels Printing	260
95	Berlin Industries	250
96	Sandy Alexander	250
97	Riverside Press	200
98	Pacific Lithograph	200
99	Kukla Press	200
100	Sayers Printing	185
101	E/D Web	165

BUSINESS FORMS PRINTERS

Rank, Name (Parent), Location	Sales Most Recent Fiscal Year (000)	Change (%)	Employees	CEO
1 **Moore Corporation Limited[1]**, Toronto, Ont.	$2,422,034**	+ 2	25,021	M.K. Goodrich
2 **Standard Register[1]**, Dayton, OH	716,410	+ 1	6,168	J. K. Darragh
3 **Uarco, Inc. (Settsu Corp.)**, Barrington, IL	692,000	+38	4,500	H.L. Koelling
4 **Wallace Computer Services, Inc.[1]**, Hillside, IL	448,700	+ 5	3,000	T. Dimitriou
5 **American Business Products[1]**, Atlanta, GA	398,794	+ 3	4,000	T. R. Carmody
6 **Reynolds & Reynolds[1]**, **Business Forms Div.**, Dayton, OH	343,200	– 2	2,800	R.C. Nevin
7 **Duplex Products, Inc.[1]**, Sycamore, IL	298,000	– 9	2,600	C.L. Peterson
8 **Bowater Communication Papers[1]**, Moline, IL	280,900	–14	728	S.B. Saidman
9 **New England Business Service[1]**, Groton, MA	233,113	+ 3	2,154	B.H. Calder
10 **NCR[1], Business Forms Div.**, Miamisburg, OH	200,000	+ 3	1,300	D.J. Enneking
11 **SCM Allied Paper, Inc.**, Dayton, OH	150,000	+ 2	600	W.H. Ames
12 **Ennis Business Forms, Inc.[1]**, Ennis, TX	126,164	– 3	1,500	K.A. McCrady
13 **Office Electronics**, Itasca, IL	111,500	+ 6	575	R.A. Houston
14 **Shade Computer Forms**, Green Bay, WI	82,497	– 8	254	J.L. Kemerling

[In some cases, figures may include revenues from operations other than printing.]

THE GAM 101: OFFICIAL RANKING

Rank, Name, (Parent Company), Location	Sales Most Recent Fiscal Year (000)	Sales Previous Fiscal Year (000)	Change (%)	Employees	Sales Per Employee	Sites	Press Units: Sheetfed, Web Offset, Gravure, Other	Primary Products	CEO	Years in Business
1 **R.R. Donnelley & Sons[1]**, Chicago, IL	$3,497,943	$3,122,331	+12	30,000	$116,600	42	*	COM	J.R. Walter	127
2 **Deluxe Corporation[1]**, St. Paul, MN	1,413,553	1,315,828	+ 7	17,174	82,308	81	*	SPC	H.V. Haverty	76
3 **Quebecor Printing,** Montreal, Quebec	1,406,000**	1,258,000	+12	10,500	133,905	58	386,686,334,37[2]	COM,BK,PUB	J. Neveu/C. Cavell	2
4 **Lawson Mardon[1]**, Mississauga, Ont.	992,383**	872,516	+14	7,500	132,320	50	*	SPC	L.G. Tapp	108
5 **World Color Press (Kohlberg Kravis Roberts & Co.)**, Effingham, IL	682,091	686,098	– 1	6,000	113,680	9	0,601,197,24[2]	PUB	R.G. Burton	88
6 **Ringier America (Ringier AG, Zurich),** Itasca, IL	654,000	665,000	– 2	5,300	123,400	10	*	PUB	E.C. Nytko	98
7 **Banta Corporation[1]**, Menasha, WI	577,600	517,200	+12	3,700	156,110	18	*	COM,BK,PUB,CAT	C.W. Aurand Jr.	90
8 **Valassis Inserts (Consolidated Press Holdings, Sydney, Australia)**, Livonia, MI	574,000	524,000	+10	1,207	475,560	3	5,61,0	INS	D. Brandon	22
9 **Arcata Graphics Company**, Baltimore, MD	562,000	523,000	+ 7	7,500	74,930	11	*	BK,PUB	J.W. Fowler	86
10 **Sullivan Graphics**, Brentwood, TN	554,000	566,000	– 4	4,060	136,450	29	0,97,0,4[2]	BK,INS	J.T. Sullivan	3
11 **Treasure Chest Advertising**, Glendora, CA	535,000**	500,000	+ 7	3,200	167,190	14	0,333,0	INS	S.G. Scheller	24
12 **Southam Graphics Group[1]**, Toronto, Ont.	526,567	512,393	+ 3	4,100	128,431	24	*	COM,INS,PUB,CAT	M.A. Quinn	114
13 **Quad/Graphics**, Pewaukee, WI	454,000	400,000	+14	5,000	90,800	7	4,345,40	COM,PUB,CAT	H.V. Quadracci	20
14 **Brown Printing (Gruner + Jahr)**, Waseca, MN	407,000	383,000	+ 6	3,100	131,290	8	0,240,30	PUB,CAT,INS	D. Nitz	44
15 **Western Publishing,** Racine, WI	405,000	425,000	– 5	2,500	162,000	3	46,60,0,14[2]	COM,BK,PUB	W.O. Nahikian	84
16 **John H. Harland Company[1]**, Atlanta, GA	371,300	344,700	+ 8	5,600	66,300	42	*	SPC	R.R. Wondson	68
17 **American Signature,** Memphis, TN	360,000	337,149	+ 7	2,400	150,000	5	10,204,0	PUB,CAT	T.A. Tevis	6
18 **Graphic Industries[1]**, Atlanta, GA	329,123	310,330	+ 6	2,783	118,261	34	318,224,0,36[2]	COM	M.C. Pope III	21
19 **Trans-Continental Printing[1], (GTC Transcontinental Group)**, Saint-Laurent, Quebec	308,673**	274,214	+13	2,471	124,918	17	17,285,0	COM,INS,CAT,PUB	R. Marcoux	15
20 **Clarke American (MB-Caradon),** San Antonio, TX	266,600	260,000**	+ 3	3,391	78,620	42	*	SPC	J.E. Coln	117
21 **Webcraft Technologies,** N. Brunswick, NJ	261,000	220,000	+21	1,600	163,130	3	*	SPC	R.E. Katz	22
22 **Continental Graphics Holdings**, Los Angeles, CA	220,000	303,000	–27	3,200	68,750	19	*	COM,BK	C.F. Bourland	3
23 **Bowne & Company[1]**, New York, NY	201,217	189,577	+ 6	1,700	118,360	33	300,200,0,1[2]	FIN	R.H. Koontz	216
24 **Engraph[1]**, Atlanta, GA	200,228	203,059	– 1	1,370	146,150	10	5,0,5,20[2],20[3]	SPC	L. Benatar	58
25 **Perry Printing (Journal Communications)**, Waterloo, WI	185,000	179,000	+ 3	1,750	105,710	7	25,150,25,60[3]	COM,PUB,INS,CAT	C. Hutchison	60
26 **Stevens Graphics**, Atlanta, GA	181,000	173,000	+ 5	1,200	150,830	4	44,38,0,4[2]	DIR	H.M. Inman	94
27 **Jostens[1]**, Minneapolis, MN	176,000	153,000	+15	3,500	50,290	5	144,0,0	BK	W.H. Lurton	94
28 **Cadmus Communications[1]**, Richmond, VA	170,375	160,671	+ 6	1,820	93,610	9	120,38,0	PUB	W. Stettinius	7
29 **Alden Press,** Elk Grove Village, IL	165,000	162,000	+ 2	700	235,710	1	0,73,0	COM,CAT	J. Spier	45
30 **Lehigh Press,** Cherry Hill, NJ	161,100	161,400	0	1,000	161,100	6	49,69,0,3[4]	COM,BK	J.D. DePaul	67
31 **Shorewood Packaging[1]**, Farmingdale, NY	143,000	139,000	+ 3	1,100	130,000	9	*	SPC	P.B. Shore	25
32 **Bertelsmann Printing & Mfg. Corp.**, Berryville, VA	140,000	124,000	+13	1,100	127,270	5	*	BK	G. Thielen	4
33 **Queens Group,** Long Island City, NY	137,000	132,000	+ 4	918	149,240	4	72,22,0,2[3]	SPC	E. Kaltman	60
34 **Graphic Arts Center,** Portland, OR	133,000	119,000	+12	800	166,250	1	34,34,0	COM	F.M. Stammers	90
35 **United States Banknote[1]**, New York, NY	130,000	60,000	+117	980	132,650	4	43,30,8,18[2],33[7]	SPC	M. Weissman	121
36 **Graphisphere Corp.**, Des Plaines, IL	120,000	110,000	+ 9	705	170,210	3	46,28,0	COM	G.R. Dorn	27
37 **Ivy Hill[1] (Time Warner)**, New York, NY	117,000	93,000	+26	970	120,620	4	113,0,0	COM	E. Kern	77
38 **Gulf Printing (Southwestern Bell)**, Houston, TX	112,000	105,000	+ 6	530	211,320	4	32,44,0,3[2]	COM	R.D. Cashman	75
39 **Fleming Packaging**, Peoria, IL	108,592	95,112	+14	750	144,790	7	72,13,9,13[2],34[12]	SPC	T.J. Fleming	57
40 **George Rice & Sons**, Los Angeles, CA	107,240	103,287	+ 4	484	221,570	1	30,24,0	COM	E. Grossberg	112
41 **Judd's Incorporated**, Washington, DC	107,200	114,100	– 6	1,066	100,560	2	8,66,0	BK,PUB	T.A. Manning	123
42 **Courier Corporation[1]**, Lowell, MA	105,334	95,951	+10	1,402	75,130	5	18,40,0	BK	J.F. Conway Jr.	167
43 **Anderson Lithograph**, Los Angeles, CA	105,000	93,000	+13	450	233,330	1	36,24,0	COM	G.T. Parana	40
44 **Shea Communications**, Louisville, KY	104,738	104,177	+ 1	725	144,470	2	0,40,39	CAT	M.D. Shea	3
45 **Merrill Corporation[1]**, St. Paul, MN	101,000	69,000	+46	850	118,820	4	31,22,0	FIN	J. Castro	23
46 **Meehan-Tooker,** East Rutherford, NJ	98,000	95,000	+ 3	530	184,910	4	39,94,0	COM	M.D. Voss	47
47 **Moebius Printing,** Milwaukee, WI	97,850	98,000	0	559	175,040	2	19,44,0	COM	M.C. McDonough	80
48 **Taylor Publishing (Insilco),** Dallas, TX	90,000	87,800	+ 4	1,200	75,000	4	57,0,0,1[2]	BK	F.P. Perliski	52
49 **Instant Web Companies,** Chanhassen, MN	90,000**	98,000	– 8	1,200	75,000	4	0,62,0	COM,SPC	J. Carlson	22
50 **Ameriscribe Management Services[1]**, New York, NY	88,000	80,000	+10	1,900	46,320	225	*	IMG	W.J. Shaw	12

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THE GAM 101: OFFICIAL RANKING

Rank, Name, (Parent Company), Location	Sales Most Recent Fiscal Year (000)	Sales Previous Fiscal Year (000)	Change (%)	Employees	Sales Per Employee	Sites	Press Units: Sheetfed, Web Offset, Gravure, Other	Primary Products	CEO	Years in Business
51 **Arandell-Schmidt (Arandell Corp.)**, Menomonee Falls, WI	85,500	85,407	0	413	$207,020	1	0,24,0	COM	F.E. Treis	69
52 **Mack Printing**, Easton, PA	81,226	54,433	+49	1,400	58,020	3	37,65,0	PUB	P.F. Mack	90
53 **Century Graphics**, Metairie, LA	80,000	50,000	+60	360	222,220	2	0,24,0	INS	C.J. Eberts	35
54 **Alford Industries (Lancer Industries)**, Ridgefield Park, NJ	78,000	86,389	−10	600	130,000	4	36,0,53,10[2],38[12]	SPC	J. Hildner	89
55 **Case-Hoyt (BCE, Inc.)**, Rochester, NY	78,000	N/A	N/A	500	156,000	2	28,26,0	COM	K. Kirk	72
56 **Petty Co., Inc.**, Effingham, IL	$77,730	$71,046	+ 9	500	155,460	2	0,69,0	COM	G.A. Whaling	16
57 **Publishers Press, Inc. (Publishers Printing)**, Shepherdsville, KY	77,000	72,000	+ 7	1,046	73,610	3	6,74,0	PUB	N.X. Simon	125
58 **Hart Graphics**, Austin, TX	72,500	58,152	+ 25	750	96,670	6	50,36,0,1[3],17[8]	COM	W.L. Hart	81
59 **Continental Web Press**, Itasca, IL	67,000	65,000	+ 3	425	157,650	1	0,88,0	COM	K.W. Field	18
60 **Combined Communication**, Lisle, IL	60,250	58,300	+ 3	650	92,690	2	6,40,0	PUB	R. Sanderson	45
61 **K/P Companies**, Berkeley, CA	58,497	54,519	+ 7	625	93,600	18	*	COM	J.W. Knapp	25
62 **Webcrafters**, Madison, WI	58,000	60,000	− 3	630	92,060	2	3,13,0,4[2]	BK	J.J. Frautschi	101
63 **Berlin Industries (Smith Investment)**, Addison, IL	58,000	58,000	0	250	232,000	2	0,44,0	COM	F.E. Schmitt	55
64 **Sleepeck Printing**, Bellwood, IL	57,700	56,000	+ 3	425	135,760	3	*	COM	M.W. Sleepeck	87
65 **Fort Dearborn Lithographic Co.**, Chicago, IL	56,800	50,500	+ 12	360	157,780	3	60,0,0	SPC	T.W. Adler	68
66 **Keller-Crescent**, Evansville, IN	56,000	48,000	+ 17	560	100,000	2	37,0,0,6[2]	COM	T.M. Smythe	106
67 **Serigraph, Inc.**, West Bend, WI	55,600	54,900	+ 1	820	67,800	3	8,0,0,35[4]	SPC	J.B. Torinus Sr.	42
68 **Spencer Press**, Wells, ME	55,500	54,000	+ 3	470	118,090	1	0,27,0	CAT	J.E. Spenlinhauer III	51
69 **Madison/Graham Colorgraphics**, Los Angeles, CA	55,000	50,000	+ 10	300	183,330	3	26,23,0	COM	C.N. Madison	38
70 **L.P. Thebault Company**, Parsippany, NJ	54,000**	54,000	0	330	163,640	1	31,12,0	COM	J.B. Thebault	37
71 **Sheridan Group**, Hanover, PA	53,333	51,739	+ 3	770	69,260	2	41,0,0	PUB,BK	R.C. Sheridan	76
72 **Tech Web, Inc.**, Wheeling, IL	53,250	54,200	− 2	360	147,920	1	0,36,0	COM	D.G. Weymouth	15
73 **AGI Incorporated**, Melrose Park, IL	52,597	42,627	+ 23	408	128,910	1	22,5,0	COM,SPC	R. Block	23
74 **Edwards Brothers**, Ann Arbor, MI	52,140	48,459	+ 8	700	74,490	3	12,2,0	PUB,BK	M.H. Edwards	98
75 **Avanti Press**, Miami, FL	52,000	46,000	+ 13	400	130,000	1	0,18,0	COM,CAT	J.R. Arriola	26
76 **Sandy Alexander (Mickelberry Corp.)**, Clifton, NJ	52,000	43,000	+ 21	250	208,000	1	30,16,0	COM	F. Stillo	27
77 **Northeast Graphics**, North Haven, CT	52,000	46,000	+ 13	400	130,000	1	17,43,0	COM	S. Bortner	3
78 **Printco**, Greenville, MI	48,565	49,019	− 1	265	183,260	2	0,40,0	INS	J.A. Pentecost	22
79 **Danbury Printing & Litho**, Danbury, CT	48,000	48,000	0	300	160,000	1	17,36,0	COM	M. Previdi	45
80 **The Riverside Press**, Dallas, TX	47,671	40,719	+ 17	200	238,360	1	35,0,0	COM	G.C. Marsh	101
81 **Japs-Olson**, Minneapolis, MN	46,700	40,650	+ 15	400	116,750	2	51,85,0,3[2],34[3]	COM	R.E. Murphy	84
82 **Cairn Capital, Inc.**, Toronto, Ont.	46,186**	53,509	− 14	454	101,731	6	*	COM	D.M. Alloway	46
83 **Pacific Lithograph**, San Francisco, CA	46,000	43,000	+ 7	200	230,000	1	29,12,0	COM	E.J. Flynn II	42
84 **Universal Printing**, St. Louis, MO	46,000	44,000	+ 5	400	115,000	2	38,13,0,7[2]	COM	R.A. Ebel	52
85 **Waverly Press[1] (Waverly Inc.)**, Baltimore, MD	45,200	44,710	+ 1	610	74,100	2	22,12,0	PUB	B. Knox	101
86 **Noll Printing (Our Sunday Visitor)**, Huntington, IN	45,100	45,140	0	340	132,650	1	0,29,0	CAT	R. Ciavola	13
87 **Graftek Press[1] (Devon Group)**, Woodstock, IL	45,000	43,300	+ 4	527	85,390	4	19,53,0	PUB	S.B. Pearlman	24
88 **Williamson Printing**, Dallas, TX	45,000	45,000	0	390	115,380	2	40,24,0,7[2]	COM	J. Williamson	107
89 **Henry Wurst, Inc.**, North Kansas City, MO	43,178	52,097	− 17	370	116,697	2	0,32,0	COM	J.C. Wurst	54
90 **Solar Press, Inc.**, Naperville, IL	42,000	37,000	+ 14	600	70,000	3	0,35,0	SPC	F.C. Hudetz	19
91 **Prolitho**, Provo, UT	42,000	44,000	− 5	600	70,000	2	42,32,0	BK	D.A. Rapier	6
92 **Babn Technologies (BCE, Inc.)**, Montreal, Quebec	40,527	53,807	− 25	300	135,090	2	0,24,0,42[3],6[4]	SPC	J.P. Desbiens	46
93 **A.D. Weiss Lithograph[1] (St. Ives)**, Hollywood, FL	40,000	30,000	+ 33	352	131,636	1	0,76,0	PUB	Q.J. Jones	43
94 **Acme Printing, Inc.**, Wilmington, MA	40,000	35,000	+ 14	280	142,857	1	40,12,0	COM	F.W. Canzano Jr.	61
95 **Wisconsin Color Press (Mid Continent)**, Milwaukee, WI	40,000	40,000	0	450	88,888	1	0,40,0	PUB	F. Cappetta	63
96 **Kukla Press, Inc.**, Elk Grove Village, IL	40,000	40,000	0	200	200,000	1	0,54,0	COM	S.J. Kukla	27
97 **Sayers Printing Company (Graphic Innovators)**, St. Louis, MO	36,700	33,800	+ 9	185	198,374	1	17,22,0,1[2]	INS	H.M. Sayers	79
98 **S. Rosenthal & Co.**, Cincinnati, OH	36,400	36,400	0	300	121,333	1	10,32,0	PUB	T.N. Rosenthal	123
99 **Daniels Printing**, Everett, MA	36,052	36,044	0	260	138,662	1	46,6,0,5[2]	COM,FIN	L.S. Daniels	111
100 **E/D Web**, Cicero, IL	35,000	32,000	+ 9	165	212,121	1	0,29,0	COM	B. Love	26
101 **Neenah Printing (Menasha Corp.)**, Neenah, WI	34,548	32,715	+ 6	315	109,676	3	42,20,0,2[2]	COM	W. Drew	91

GREETING CARD PRINTERS

Rank, Name, Location	Sales Most Recent Fiscal Year (000)	Change (%)	Employees	CEO
1 **Hallmark Cards**, Kansas City, MO	$2,700,000	+ 8	22,200	I.O. Hockaday
2 **American Greetings[1]**, Cleveland, OH	1,431,806	+ 4	21,400	M. Weiss
3 **Gibson Greetings[1]**, Cincinnati, OH	513,000	+10	4,500	B.J. Sottile

COLOR TRADE SHOPS

Rank, Name, Location	Sales Most Recent Fiscal Year (000)	Change (%)	Equipment: Scanners	Equipment: Color Pagination Systems	CEO
1 **Wace USA[1]** (Wace Group, London) Chicago, IL	$153,000	+43	27	44	J. J. Collins
2 **Applied Graphics Technologies**, New York, NY	111,000**	*	19**	18**	F. Drasner P. Faucetta
3 **Jannock Imaging**, Toronto, Ont.	86,576**	−10	6	10	W.H. Batten/ J. Lane
4 **Schawk Inc.**, Des Plaines, IL	80,000	+29	17	11	C.W. Schawk
5 **Black Dot Graphics[1]** (Devon Group), Crystal Lake, IL	76,559	0	6	8	J.W. Dinzole
6 **American Color** (Sullivan Graphics), Phoenix, AZ	71,331	+24	28	10	D. Brazell
7 **Enteron Group**, Chicago, IL	52,000	+13	6	4	J.J. Reilly
8 **Lanman Companies**, Washington, DC	47,800**	+ 7	10	5	B.B. Cunningham
9 **Color Associates**, St. Louis, MO	29,400	+ 5	3	3	C.W. Bauer
10 **Kwik International Color**, New York, NY	24,000	+17	3	3	R.J. Sirota
11 **Magna Graphic Inc.**, Lexington, KY	19,800	+13	5	3	K. Engle
12 **Blanks Color Imaging**, Dallas, TX	19,475	+10	5	3	L. Blanks
13 **H&S Reliance Ltd.**, Toronto, Ont.	17,184**	+ 4	2	4	J.A. Davidson
14 **NEC Inc.**, Nashville, TN	17,100	− 3	3	7	R.W. Luckett
15 **Rex Three**, Miami, FL	17,100	+ 4	5	5	J. Miller
16 **Herzig Somerville**, Toronto, Ont.	15,741**	+ 7	3	7	E. Herzig

[Editor's Note: Ongoing company consolidations, the merging of international operations, and the changing nature of the prepress business make it impossible to compile comparative information. Also, many companies cannot isolate revenues for color separation services; thus, their revenues may include typesetting, color retouching, custom photo processing, electronic prepress services, and printing. Revenues for American Color are excerpted from the Sullivan Graphics total.]

EXPLANATION OF ABBREVIATIONS

COM	Commercial Printing	INS	Inserts
PUB	Publications	FIN	Financial Printing
BK	Books	DIR	Directory Printing
CAT	Catalogs	IMG	In-plant Management
SPC	Specialty		

FOOTNOTES

[1] Publicly held
[2] Letterpress
[3] Flexo press
[4] Screen press
[5] Diecutting
[6] Gold leaf press
[7] Sheetfed intaglio
[8] Forms press
[9] Coaster press
[10] Cameron belt press
[11] Coater
[12] Specialty press

*Information not available
**Estimated

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Vice-President and Publisher
Ronald C. Andriani

Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken, Lisa Cross

Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Jeff Rothstein

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager
Richard Negri (212) 463-6827

Business Manager Jerry Arotsky

Contracts Jeffrey Rothstein

Production Manager
Daniel Coakley (212) 463-6545

Promotion Manager
Dorian Torregrossa

Research Manager
Angela Venturino Darchi

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Bulk Reprints Carol Bien
1-800-323-4958

Supplement Reprints Cathy Dionne
1-800-523-9654

Circulation Manager
Carla Keller (303) 398-7623

Subscriptions/Back Issues
1-800-637-6089
249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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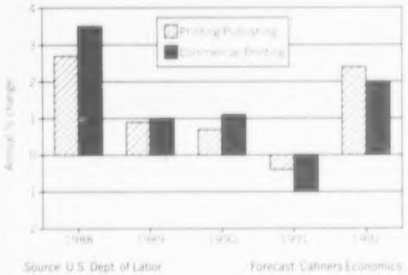
ETWATCHMARKETWATCH**MARKET WATCH**MARKETWATCHMARKE

Industry Employment on The Decline

Employment

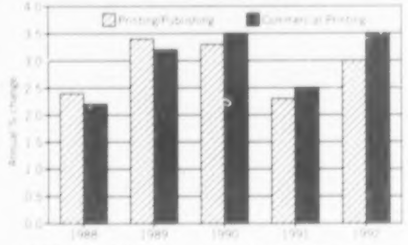


Source: U.S. Dept. of Labor Forecast: Cahners Economics

From June 1990 to June 1991, employment in the printing and publishing indutry declined by 45,700 workers. This represents the first time in more than a decade that annual industry employment decreased. Commercial printing, which usually has the highest employment growth in the industry, has lately been experiencing a loss. Employment was down 18,800 workers in June 1991, as compared to a year ago, representing 41% of the total industry loss in that time period. Since employment in the book and periodical publishing sectors has been on the decline for over a year, job losses this year have been moderate. The outlook for total printing and publishing employment is grim. By the end of this year, industry employment will have fallen 2% to just under 1.54 million workers. Employment in the commercial printing sector will slip 1.9%, but start turning around with 548,000 employees by year-end. Slow but steady growth, in the 1.5% to 2.5% range, is projected for 1992 and 1993.

Average Hourly Wages Increase At Moderate Pace

Average Hourly Wages



Source: U.S. Dept. of Labor Forecast: Cahners Economics

Despite the slow growth in employment, average hourly wages paid to printing and publishing employees continue to grow at a steady pace. In June 1991, industry wages averaged $11.44 per hour, up from $11.16 the year before. In commercial printing, wages stood at $11.68, as compared to $11.44 a year ago. The printing sector with the highest wages—printing trade services—has actually seen the slowest wage growth (only 1.1%) in the past 12 months. In order to keep the best workers now and attract new workers when business activity picks up, printers continue to modestly increase wages paid to production workers. Commercial printing wages are projected to grow 2.3% this year, followed by 3% gains in the following two years. For the whole industry, hourly wages should grow 2.4% in 1991, 2.7% in 1992, and 3% in 1992.

DEXGRAPHICARTSINDEX**GRAPHIC ARTS INDEX**GRAPHICARTSIND

This month's datatable highlights the continued gains in industry labor productivity. In June, the productivity index stood at 115.6 (1977=100), up from 111.5 a year ago. This increase stems from the fact that total number of employee hours worked has declined faster than total output. As activity begins picking up next year, output will increase faster than employment growth, and productivity rates will once again see a big jump. Cahners projects a 2% gain this year, followed by a 3.1% rise in 1992.

SUPPLY INDICATORS

				Annual Percent Change			
Employment (1)	**Jun 90**	**May 91**	**Jun 91**	**1990**	**1991**	**1992**	**1993**
Printing & Publishing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Commercial printing	[illegible]	[illegible]	[illegible]	[illegible]	-1.9	[illegible]	[illegible]
Productivity (2)							
Printing & publishing	111.5	[illegible]	115.6	[illegible]	[illegible]	[illegible]	[illegible]
Average Hourly Earnings (3)							
Printing & publishing	11.16	[illegible]	11.44	[illegible]	2.4	2.7	3.0
Commercial printing	11.44	[illegible]	11.68	[illegible]	2.3	3.0	3.0
	Q4/89	**Q3/90**	**Q4/90**	**1990**	**1991**	**1992**	**1993**
Graphic Arts Machinery (4)							
New orders	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Shipments	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Graphic Arts Supplies (4)							
Shipments	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Advertising Moves To the Desktop

Advertising printers will 'go green' and embrace desktop publishing to offset lagging business.

By Bridget Kinsella Arajs
Assistant Editor

Advertising, by definition, is an evolving business. And the printers that cater to this market have been part of an evolution itself, despite the (currently) poor economy.

In the 1990s, advertising printers will not only be going green, but will find themselves responding to an increasing demand for prepress and desktop capabilities. Moreover, there is a common sentiment among advertising printers: while sales might be level or somewhat down for 1991, they haven't given up, and are determined to rise to the challenge. Often this challenge is answered with the addition of new staff or equipment.

According to *PrintMarkets*, published by Trade and Technology Press in Stamford, Conn., printers that fit into the advertising category print one or all of the following: product and service announcements; corporate brochures and booklets; advertising circulars and flyers; product and capability handouts; point-of-purchase handouts; and magazine inserts and bind-ins.

One of these printers, at least, is "busy right now": Bill Abene, president of Moebius Printing Company in Milwaukee. He explains that although his company has orders through October, "We don't see the market firming up." One of the things Moebius is doing to better serve its market, is to add ink-jet and selective binding equipment, hopefully by the end of the fourth quarter of this year. In the meantime, the presses at Moebius are running, and that certainly pleases the company's newly-appointed president. Moebius prints about $27 million-worth of advertising materials.

Another company that has seen a recent change in both management style and even some personnel is Bradley Printing of Des Plaines, Ill. With a $29 million sales volume in this niche alone, Bradley is focusing on a the Deming-type management style, which pushes more responsibility to the bottom line. Lee Zierten, senior vice president/sales and marketing, says that this trend toward open management directly follows the revelation "that the ego-driven management style of the '80s didn't work." A result of the new corporate style, he adds, "is that the attitudes of the printers and print buyers has changed, and the spirit of cooperation between them is much better than it was four or five years ago."

According to John Pope, president of Williams Printing in Atlanta (one of Graphic Industries' 47 holdings), there has been a fundamental change in the way buyers purchase their advertising printing. "What they want now is to have it right away, and they don't want any compromises on quality," he explains. Pope sees a trend among buyers where price is taking a back seat to quality and turnaround. "If you can give the people what they want, in the time that they need it, and the quality they need, then price is not as big a factor," he adds.

Graphic Industries recently backed up its long-held quality-minded attitude by instituting a formalized "total quality" program throughout the company. Pope believes all "printers are going to have to do that (total

HIRAM WALKER
Liqueurs
Get Ready For The Beat Of A Different Rhum
HI-CHI'S
HIRAM WALKER
RED HOT SCHNAPPS
Devilishly Different!
Taste The Difference!
A Celebration of Life
Hiram Walker
Spectacular Cowrt Dividend Promotion

Peter Neumann

quality management) not only for themselves, but because the clients are demanding it."

The clients in the advertising printing field also seem to be demanding electronic publishing and image manipulation technology. "The major thing advertising clients are asking for, or have a need for, or are making sure that we have the capabilities for, is electronic prepress," says, J.D. Droge, vice president/sales and marketing of the Portland, Ore.-based Graphic Arts Center. The printer currently has two systems, a Scitex and a DS America, and recently installed an eight-color Heidelberg sheetfed press.

Any equipment investment requires a great deal of thought and, before committing his company's money, Droge did his homework. He also sought the advice of some experts: "I asked some designers, 'If we had an eight-color press would you use it?' And they said, 'Give us 10 colors.' "

Typical Products

Product & Service Announcements
Corporate Brochures & Booklets
Advertising Circulars & Flyers
Product & Capability Handouts
Point-of-Purchase Handouts
Magazine Inserts & Bind-ins

Typical Users

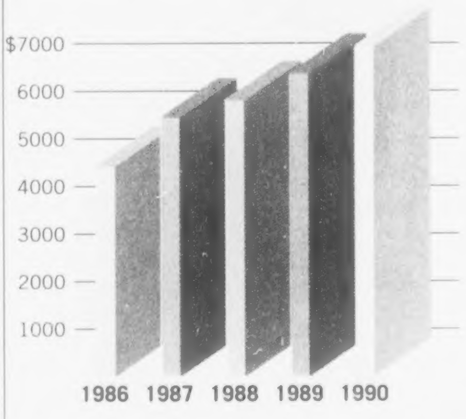
Manufacturers
Wholesalers
Retailers
Service Companies
Independent Consultants
Marketers

In Atlanta, Williams Printing is, according to its president, "heavily into desktop" and does mostly high-end separations on its Scitex system. Pope explains: "More and more, customers come in with disks and we have to accommodate them. They want to be able to get into the system and do retouching and manipulation." Williams currently operates three shifts in this department.

The demand for prepress capabiiities has been growing for some time, yet the number of printers that can fully meet the demand falls remarkably short. Even well-equipped printers like Bradley find that it cannot fill the demand completely. "Demand for electronic production is outpacing capacity," says Zierten, adding, "And we have more capacity than anyone." Zierten estimates the increase in the demand for prepress at his shop to be about 20%, and recognizes this as a growth opportunity.

Advertising Printers

1990 Print Sales: $6,933 (millions) e



($ in millions)

Advertising Printers

Rank	Company	Sales in millions*
1	Graphic Industries, Inc.	105.0
2	Valassis Inserts	80.0
3	The Hibbert Group	45.0
4	Alden Press, Inc.	40.0
5	Anderson Lithograph	38.0
6	Graphic Arts Center	35.0
7	Direct Communications Group	30.0
8	George Rice & Sons	30.0
9	Bradley Printing	29.0
10	Moebius Printing Company	27.0

*Note: Preliminary Ranking e estimate

Source: PrintMarkets

Chart by Annabelle Carter

Excess demand is not necessarily a bad thing. Perhaps in recognition of this growth area, Moebius Printing, which at the time does not have a prepress department, is actively investigating its benefits. Even the printers already into prepress want to stay on top of the new developments. After all, as Zierten puts it, "New technology comes out almost weekly."

"Anybody that doesn't take a look a what's going on is going to have a problem," predicts Pope. Management at Williams Printing, and the other Graphic Industries holdings, will be in attendance at Print 91. And, while Pope would not say that they are necessarily going to buy, his team has a definate mission: "To make sure that we are where we want to be and see what's coming on line."

The ability to deliver what your client wants is a time-tested recipe for success. Most of the printers we talked with agreed that recycled papers and soybean inks are in high demand in the advertising printing field.

While it is true that the economy typically generates trends and swings in the printing industry (as well as most other industrires, for that matter), in the '90s advertising print buyers are concerned with the ecology (or at least with their clients' image of them as an environmentally friendly company.)

"Ever since the decade began, the '90s have become all ecology, recycled papers and soy inks," comments Bob Czerniak, vice president/print operations at Bradley. Czerniak says that his company is involved with the Environmental Protection Agency and ink suppliers in a program called *Partners in Pollution*. His company's goal is to reduce its volatile organic compound emissions by 25% this year, and to be in complete compliance with the Clean Air Act regulations by 1995.

More of the printing customers at Williams Printing are asking for two estimates—one using recycled paper. "Some of them do it (use recycled papers), and some of them don't," says Pope, who points out that recycled papers are still typically more expensive.

Staying ahead of the competition in equipment and product quality are two important strategies; however, the forward-looking printer is realizing that he/she needs to pay more attention to market share as well. Advertising agencies have reported decreased business, yet the printers who serve this market are seeing not a decrease in job orders, but a reduction in press run and special effects. For example, the advertiser who in previous years had ordered 100,000 four-color brochures is skimming its order back to 75,000 or reducing its use of color. The truth is that most advertisers have cut their budgets, and resourceful printers have found ways to retain or expand their business.

"The print market has been more difficult this year because people are reducing their run lengths and ad budgets," concurs Droge. "So you just have to work that much smarter and that much harder to stay on top of things." While the printing facility for Graphic Arts Center is located in Portland, the company has 10 regional sales offices throughout the country, and just added to its sales team, which now totals 48 people.

"The market has been soft," Droge says, "but we've maintained some small growth." Graphic Arts Center has an advertising sales volume of $35 million, according to *PrintMarkets*.

Williams Printing attributes its success to additional sales people and moving into different markets. As its president, Pope says his business has picked up in the past few months, and although it looks as if his company will realize an 8% sales increase, he is still knocking on wood, because "We just don't know if this is going to continue.

"You can't sit back anymore and say, 'Okay, these are my old clients, I'll just wait for them to come around,'" Pope advises. "You have to go out aggressively and seek out new accounts and markets, because if you don't, you're gonna die."

In a soft market, that's not being pessimistic, that's just plain common sense. ⊟

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America the Printable

By Peter Johnston
Special Projects Manager

Let's see. The United States of America—3.5 million square miles of purple mountain majesties and amber waves of grain, not to mention cities, towns, parks, lakes, rivers, and beaches, plus somewhere around 250 million people.

And, certainly not least, home of the world's largest single print market, as measured in terms of value added, consumption of printed products, or number of operating printing plants. The United States accounts for roughly 45% of the world's printing activity.

That percentage is probably going to diminish, not because of any malaise in the nation's printing industry—as we will see, it's doing fairly well—but because of changes in what until recently was called the Eastern Bloc.

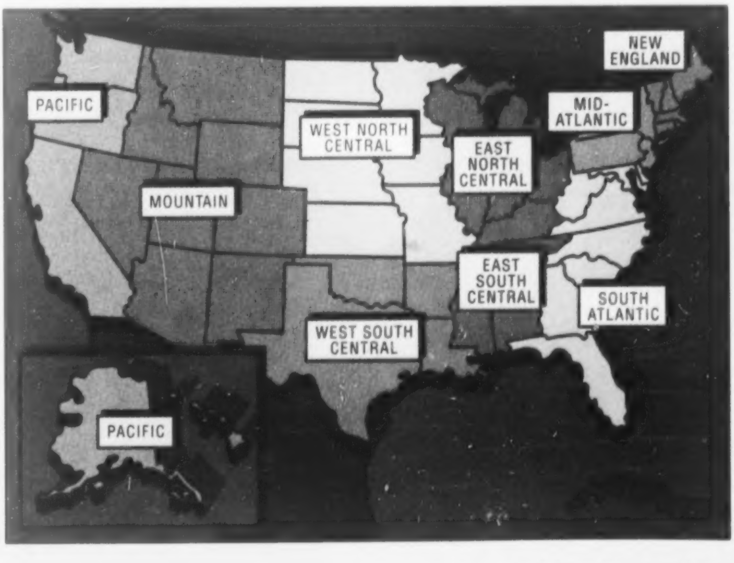
But we'll save that talk for another time. Here in the U.S., the printing industry is one of the largest manufacturing industries, with more than 50,000 sites. Although the ongoing recession has affected printing along with other economic sectors, it is still relatively healthy. Printing Industries of America's Economics department showed total industry sales growth of 7.2% between 1989 and 1990, even after adjustment for inflation (around 2% according to the Administration, 5% according to everyone else), a growth rate substantially faster than the general economy's.

PIA is projecting total shipments of $82.2 billion for 1991, up 6.3%. Once again, the printing industry will outperform the economy by better than two to one.

This growth is expected to be anything but uniform. The U.S. printing industry is divided both by market segment (e.g., commercial, books, inserts, etc.) and geographically. The five states for which PIA is projecting the greatest growth for 1990-1991 are Alaska (9.7%), Arizona (8.2%), Florida (8.2%), Nevada (8.1%) and Colorado (7.8%). The bottom five, by contrast, are New York (4.1%), Connecticut (3.4%), Hawaii (3.2%), Wyoming (2.5%) and New Hampshire (2.0%). Remember, these numbers reflect percentages only. The printing industry in New York, for instance, is a little over 188 times as large as the printing industry in Alaska.

Overall, the industry is still a long way from being fat and relaxed, but printers surveyed showed slightly fewer losses and higher profits for last year than for the year before.

Reprints of this installation of Print Market Trends may be ordered from Carol Bien, Cahners Publishing, Reprint Department, 1350 E. Touhy Ave., Des Plaines, Ill., 60018.



Jean Wisenbaugh

Regional Overview

The printing industry is a major factor in the economy of the United States. It employs approximately 808,000 people, making it second only to automobiles among manufacturing industries. As can be seen from these figures, the industry is heavily concentrated on the Eastern Seaboard and in the upper Midwest (see next page for a key to the regions). Revenue figures given are not adjusted for inflation.

COMMERCIAL PRINTING

Value of Shipments

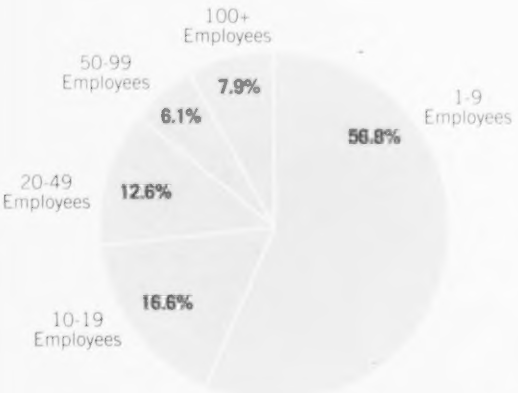
Region	Sales, 1990 ($ million)	% of U.S.	Total Sales, 1989 ($ million)	% change (1989-1990)
New England	$ 5,503	7.0%	$ 5,123	7.4%
Mid Atlantic	14,670	18.6%	13,736	6.8%
South Atlantic	11,714	14.9%	10,854	7.9%
East North Central	17,335	22.0%	16,238	6.8%
East South Central	4,288	5.5%	4,006	7.0%
West North Central	7,017	8.9%	6,561	6.9%
West South Central	5,578	7.1%	5,203	7.2%
Mountain	2,754	3.5%	2,542	8.3%
Pacific	9,839	12.5%	9,123	7.8%
TOTAL	**$78,698**	**100%**	**$73,386**	**7.2%**

Printing Sites

Region	Sites
New England	2,302
Mid Atlantic	7,272
South Atlantic	5,848
East North Central	6,798
East South Central	1,488
West North Central	2,565
West South Central	3,194
Mountain	1,733
Pacific	5,946
TOTAL	**37,146**

Source: PIA Economics Department

All Graphic Arts Plants, by Employee Count



Source: GAM 1990 Plant Equipment Market Profile

Charts and graphs by Lisa Hilgers

All Graphic Arts Plants, by Function

Function	# of Plants
Commercial	26,818
Newspaper (w/Commercial)	1,539
Newspaper (w/o Commercial)	1,883
Book & Pub	2,453
Business Forms	804
Converters	1,956
Noncommercial	7,742
Trade	4,267
Quick Printers	6,716

Source: GAM 1990 Plant Equipment Market Profile

DEMOGRAPHICS

If current trends continue, we may expect to see the primacy of the East North Central and Mid Atlantic regions diminish somewhat as the industry follows workers and customers into the growing South Atlantic and Pacific regions.

Population and Population Changes

Region	Population	Rank	Change (1980-86)
New England	12,737,000	8	3.1%
Mid Atlantic	37,279,000	3	1.3%
South Atlantic	40,916,100	2	10.7%
East North Central	41,738,000	1	0.1%
East South Central	15,209,000	7	3.7%
West North Central	15,576,000	6	2.3%
West South Central	26,863,000	5	13.1%
Mountain	12,981,000	9	14.5%
Pacific	35,737,000	4	12.4%
TOTAL	**241,078,000**		**6.4%**

Educational Attainment

Region	High School Graduates	College Graduates
U.S. Average	66.5%	16.2
New England	70.5%	19.
Mid Atlantic	66.0%	16.
South Atlantic	61.3%	15
East North Central	67.3%	14
East South Central	55.3%	1
West North Central	69.6%	1
West South Central	61.5%	1
Mountain	75.2%	1
Pacific	74.3%	

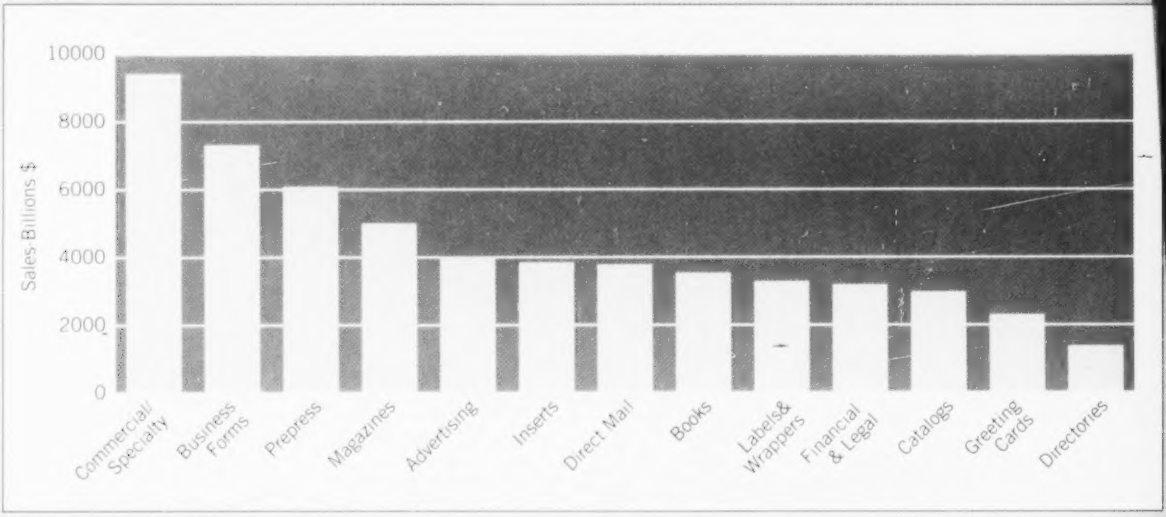
Source: U.S. Dept. of Commerce, Bureau of the Census

Market Profile

U.S. Printing Market Segments

Here we order the market segments by size for the entire United states (chart, below) and compare them to the geographical distribution of the three largest segments (chart, page bottom). In dividing the country into nine regions we follow the practice of the Bureau of the Census.

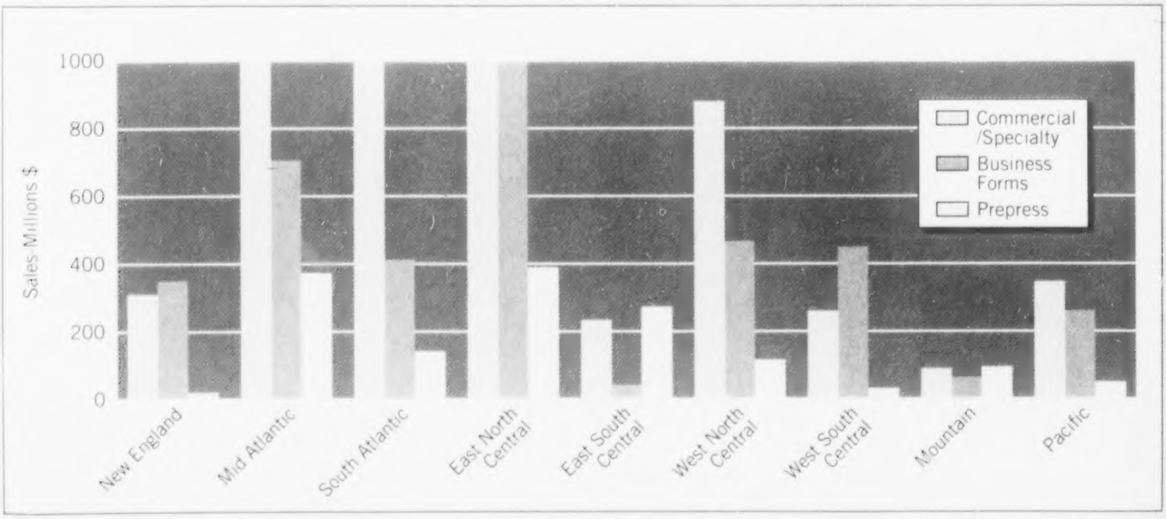
These nine regions are: New England; Mid Atlantic; South Atlantic; East North Central; East South Cen
West North Central; West South Central; Mountain; and
cific. The Bureau further delineates the West (Mountain
Pacific), the Midwest (West and East North Central),
South (West and East South Central and the South Atlan
and the Northeast (Mid Atlantic and New England).



Largest Printing Market Segments, By Region

Please note that some of the sales figures in the chart below are beyond the graph's perimeters. For reference purposes, these figures, measured in millions of dollars, are: Mid Atlantic, $1,438.6 (Commercial); South Atlantic, $1,107.7 (Commercial); East North Central, $1,745.8 (Commercial) and $4,314.2 (Business Forms).

As you can see, and as might be expected, the Mid Atlantic region (with its powerhouse states New York, Pennsylvania, and New Jersey) excels in commercial printing, along with the South Atlantic and East North Central regions; the latter states (Illinois, Ohio, Wisconsin, Michigan, and Indiana) are far and away tops in business forms printing.



Leading Printers in the Region

COMPANY	SALES
NEW ENGLAND	
Courier, Lowell, MA	105.3
Spencer, Wells, ME	55.5
Northeast Graphics, N. Haven, CT	52.0
Danbury Printing, Danbury, CT	48.0
Acme, Wilmington, MA	40.0
Daniels, Everett, MA	36.0
MID ATLANTIC	
Webcraft, N. Brunswick, NJ	261.0
Bowne & Co., New York, NY	201.2
Lehigh, Cherry Hill, NJ	161.1
Shorewood, Farmingdale, NY	143.0
Queens, Long Island City, NY	137.0
U.S. Banknote, New York, NY	130.0
Ivy Hill, New York, NY	117.0
Meehan-Tooker, E. Rutherford, NJ	98.0
Ameriscribe, New York, NY	88.0
Mack Printing, Easton, PA	81.2
Case-Hoyt, Rochester, NY	78.0
Alford, Ridgefield Park, NJ	78.0
L.P. Thebault, Parsippany, NJ	54.0
Sheridan Group, Hanover, PA	53.3
Sandy Alexander, Clifton, NJ	52.0
SOUTH ATLANTIC	
Arcata, Baltimore, MD	562.0
John H. Harland, Atlanta, GA	371.3
Graphic Ind., Atlanta, GA	329.1
Engraph, Atlanta, GA	220.2
Stevens, Atlanta, GA	181.0
Cadmus, Richmond, VA	170.4
Bertelsmann, Berryville, VA	140.0
Judd's, Washington, DC	107.2
Avanti Press, Miami, FL	52.0
Waverly, Baltimore, MD	45.2
A.D. Weiss, Hollywood, FL	40.0
EAST NORTH CENTRAL	
R.R. Donnelley, Chicago, IL	3,497.9
World Color, Effingham, IL	682.1
Ringier America, Itasca, IL	654.0
Banta, Menasha, WI	577.6
Valassis, Livonia, MI	574.0
Quad/Graphics, Pewaukee, WI	454.0
Western, Racine, WI	405.0
Perry, Waterloo, WI	185.0
Alden, Elk Grove Village, IL	165.0
Graphisphere, Des Plaines, IL	120.0
Fleming Pkg., Peoria, IL	108.6
Moebius, Milwaukee, WI	97.8
Arandell-Schmidt, Menomonee Falls, WI	85.5
Petty, Effingham, IL	77.7
Continental Web, Itasca, IL	67.0
Combined Comm., Lisle, IL	60.2
Berlin Ind., Addison, IL	58.0
Webcrafters, Madison, WI	58.0
Sleepeck, Bellwood, IL	57.7
Ft. Dearborn, Chicago, IL	56.8
Keller-Crescent, Evansville, IN	56.0
Serigraph, West Bend, WI	55.6
Tech Web, Wheeling, IL	53.2
AGI, Melrose Park, IL	52.6
Edwards Bros., Ann Arbor, MI	52.1
Printco, Greenville, MI	48.6
Noll, Huntington, IN	45.1
Graftek, Woodstock, IL	45.0
Solar Press, Naperville, IL	42.0
Kukla, Elk Grove Village, IL	40.0
Wisconsin Color, Milwaukee, WI	40.0
S. Rosenthal, Cincinnati, OH	36.4
E/D Web, Cicero, IL	35.0
EAST SOUTH CENTRAL	
Sullivan, Brentwood, TN	554.0
American Sig., Memphis, TN	360.0
Shea Comm., Louisville, KY	104.7
Publishers Press, Shepherdsville, KY	77.0
WEST NORTH CENTRAL	
Deluxe, St. Paul, MN	1,413.5
Brown, Waseca, MN	407.0
Jostens, Minneapolis, MN	176.0
Merrill, St. Paul, MN	101.0
Instant Web, Chanhassen, MN	90.0
Japs-Olson, Minneapolis, MN	46.7
Universal, St. Louis, MO	46.0
Henry Wurst, N. Kansas City, MO	43.2
WEST SOUTH CENTRAL	
Clarke American, San Antonio, TX	266.6
Gulf Printing, Houston, TX	112.0
Taylor Publishing, Dallas, TX	90.0
Century Graphics, Metairie, LA	80.0
Hart Graphics, Austin, TX	72.5
Riverside Press, Dallas, TX	47.7
Williamson, Dallas, TX	45.0
MOUNTAIN	
Prolitho, Provo, UT	42.0
PACIFIC	
Treasure Chest, Glendora, CA	535.0
Continental, Los Angeles, CA	220.0
Graphic Arts, Portland, OR	133.0
George Rice, Los Angeles, CA	107.2
Anderson Litho, Los Angeles, CA	105.0
K/P Companies, Berkeley, CA	58.5
Madison/Graham, Los Angeles, CA	55.0

Sales in millions of dollars, most recent fiscal year.
Source: Graphic Arts Monthly, 1991 GAM 101.

How Printers Are Doing

Based on a survey of firms in the region, conducted by Cahners Publishing

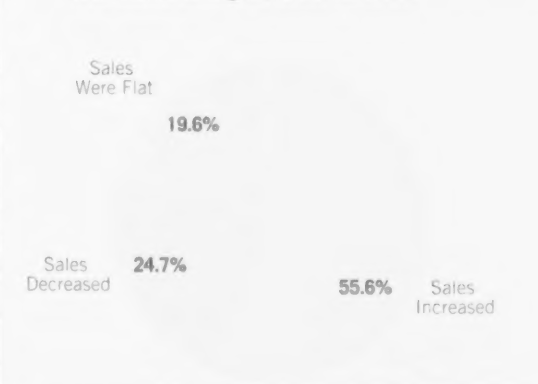
Profile of Respondents

Commercial printers in all regions of the United States responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. The following information is as reported by survey respondents; 1990 gross sales were estimated.

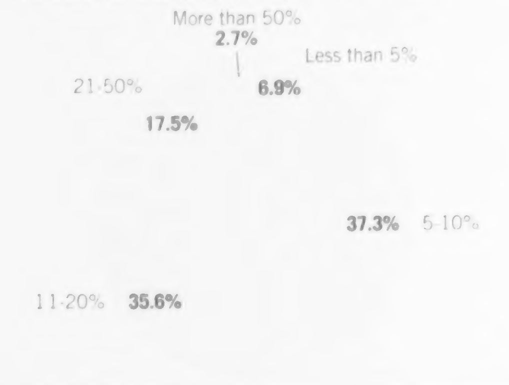
Gross Sales in 1990	
Less than $500,000	7.0%
$500,000-749,999	16.3%
$750,000-999,999	13.9%
$1 million-2,499,999	28.1%
$2,500,000-4,999,999	17.2%
$5,000,000-9,999,999	14.5%
$10 million or more	3.1%

# of Employees	
1-4	3.7%
5-9	13.4%
10-19	31.2%
20-49	30.2%
50-99	16.9%
100 +	4.7%

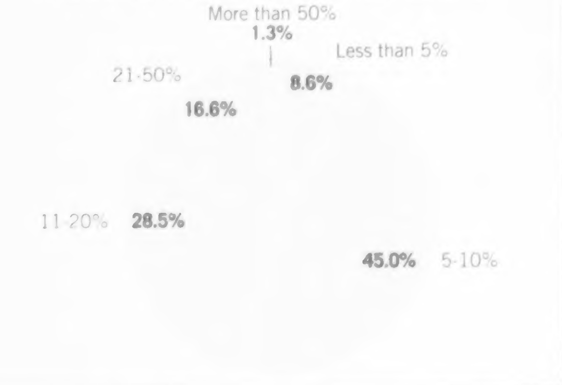
How Sales Changed, 1989 to 1990



If Sales Increased, How Large Was Increase?

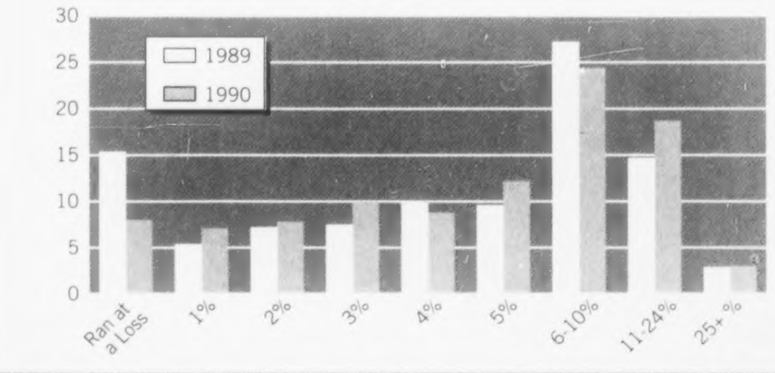


If Sales Decreased, How Large Was Decrease?

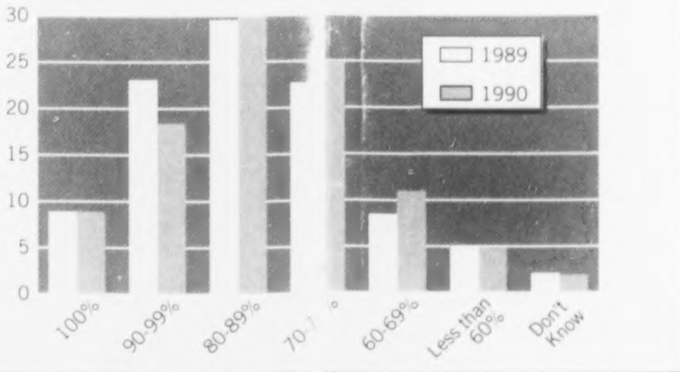


PROFITABILITY & CAPACITY

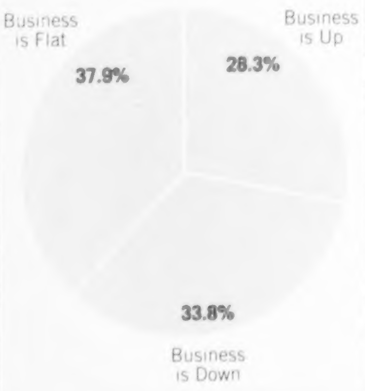
Profit as a percentage of gross sales



Operating percentage of plant c aci y



Perception Index



Comments by Printers

- With the general recession and decline in military spending and tourism, I still believe our sales will be stable.
- The proliferation of copy shops has hurt the small printer.
- Competition from more sources plus price cutting makes it tough.
- My area is experiencing excellent growth, both in population and business activity.
- The trend is toward purchasing quality as opposed to shopping for price. The old axiom "You get what you pay for" is truer than ever.

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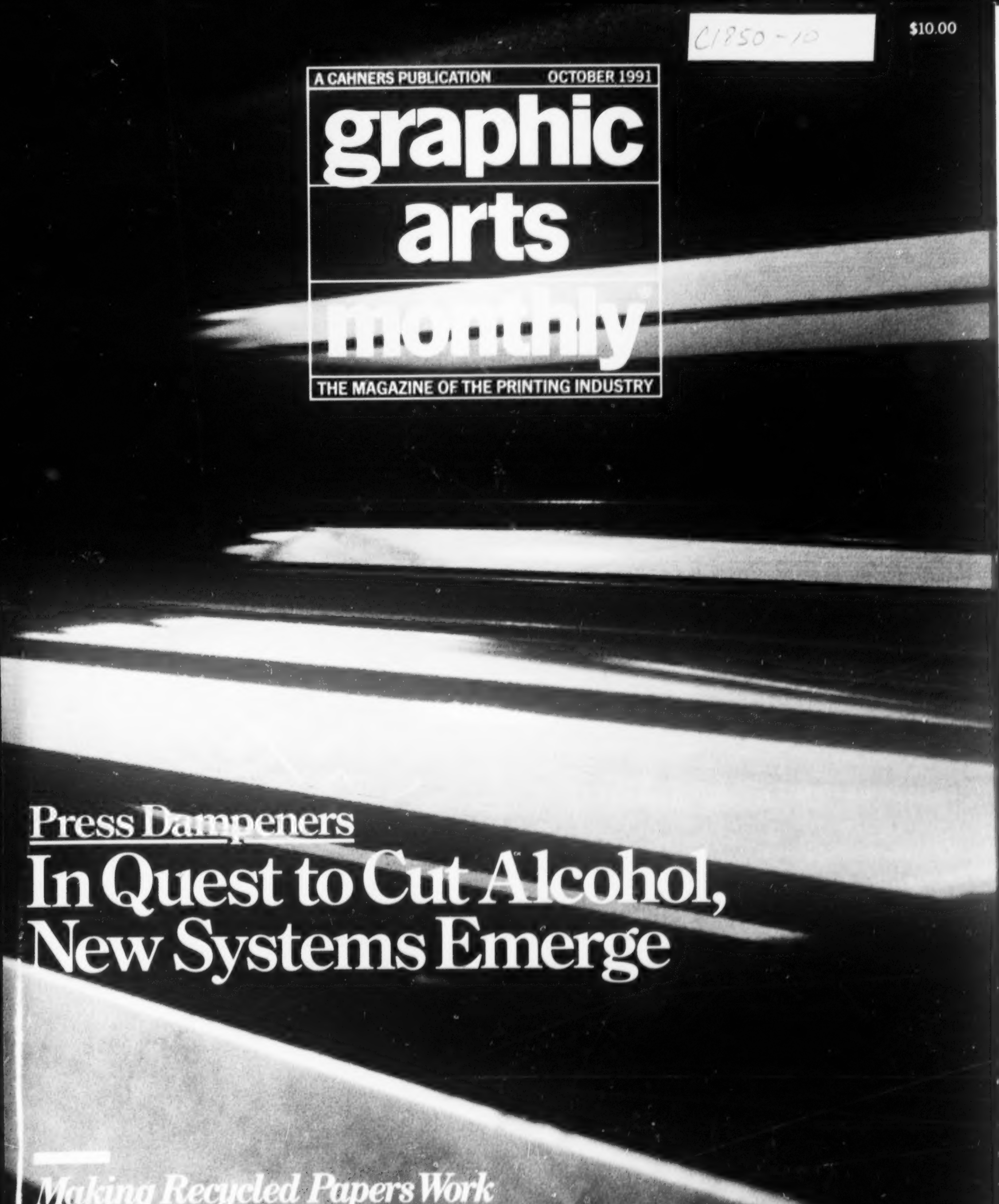
A CAHNERS PUBLICATION OCTOBER 1991

graphic arts monthly

THE MAGAZINE OF THE PRINTING INDUSTRY



Press Dampeners

In Quest to Cut Alcohol, New Systems Emerge

Making Recycled Papers Work

- *Print 91 Photos*
- *Book Market Blossoms*

VOLUME 63, NUMBER 10

A CAHNERS PUBLICATION OCTOBER 1991

graphic arts monthly

THE MAGAZINE OF THE PRINTING INDUSTRY

TOTAL CIRCULATION: 99,585

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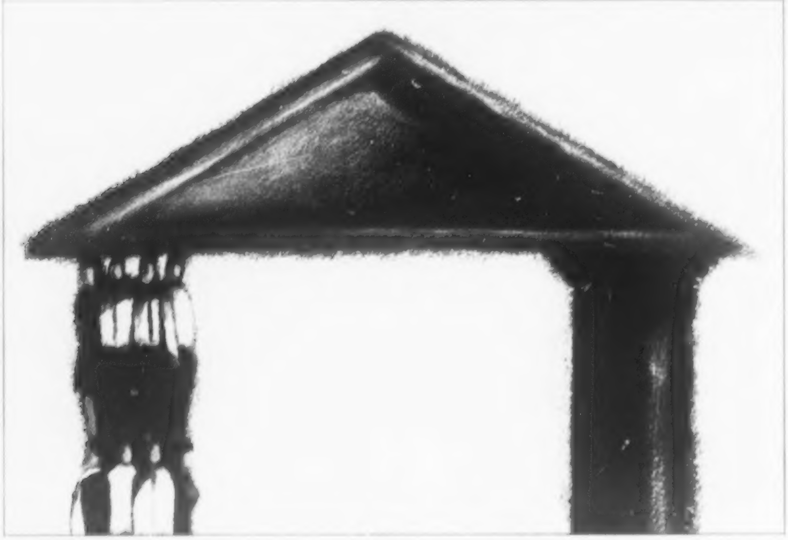

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Vice-President and Publisher Ronald C. Andriani

Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken, Lisa Cross

Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager Peter Johnston (212) 932-3368

Project Editor Debora Clesh Toth

Midwest Editor Bill Esler (312) 226-4641

Contributing Editors Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Jeff Rothstein

Classified Advertising Manager Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager Richard Negri (212) 463-6827

Business Manager Jerry Arotsky

Contracts Jeffrey Rothstein

Production Manager Daniel Coakley (212) 463-6545

Promotion Manager Dorian Torregrossa

Research Manager Angela Venturino Darchi

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Bulk Reprints Carol Bien
1-800-323-4958

Supplement Reprints Cathy Dionne
1-800-523-9654

Group Circulation Manager Eric Schmierer (303) 388-4511

Subscriptions/Back Issues
1-800-637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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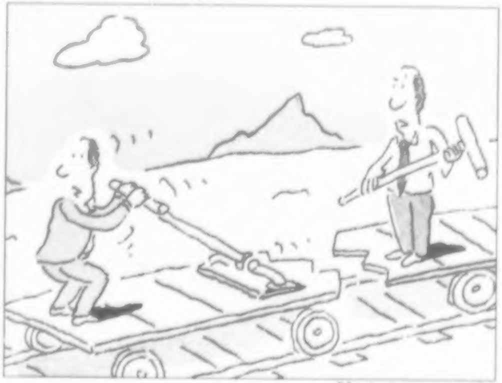

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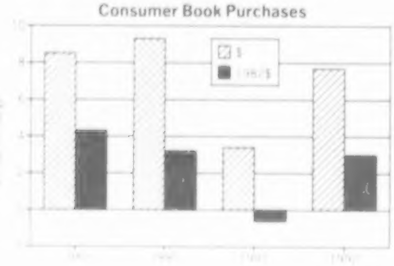
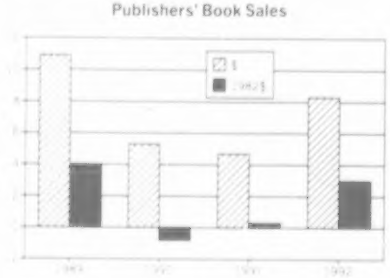
Consumers Cut Book Spending



Consumer spending on books has been particularly slow since the start of 1991. This comes as little surprise given the overall slowdown in the consumer sector. And, compared to spending on other discretionary items, spending on books remains relatively stable. In the first half of the year, consumers spent 4% more on books than last year. However, unrelenting book price inflation ate up most of this gain.

As a result, inflation-adjusted spending rose 0.3% in the first half of this year, compared to 1990. Real spending in the second quarter alone posted the first quarterly spending decline since 1986. Consumer spending will continue to show moderate growth through the middle of 1992 before picking up the pace. Cahners Economics projects consumer spending on books to increase 3.6% by year-end 1991, to total $12.87 billion. In 1992, spending is expected to increase 7.7%. Adjusting for inflation places these growth figures at -0.6% for 1991 and 3% for 1992.

Book Publishers' Sales Sluggish



Book publishers have suffered from the effects of the economic slowdown and consumer spending cutbacks [for a look at current trends in the book printing and publishing markets, see the Print Market Report on page 56]. While publishers' sales rose 5.3% last year to total $15.4 billion, inflation adjustments show sales declined 1%. Compared to the same period last year, book sales increased 3.8% in the first six months of 1991. In inflation-adjusted terms, however, it turns out that sales actually declined 1.6% during the same time period. Adjusting for the seasonality of book sales, publishers' book sales have actually increased in the past couple of months, following a particularly sluggish performance in the first quarter of 1991. A slow but steady turnaround should continue through the end of 1991. Book sales are expected to rise 4.7% in 1991, most of which will likely be price increases. Real sales will be on the rise, gaining 8.3%, or 3% in inflation-adjusted terms.

As shown in the datatable, the book categories that have had vigorous sales are juvenile trade and mass market paperback, posting gains of 4% and 6.5% in the first six months of 1991. These two categories will continue to lead the industry in sales growth over the next few years. Meanwhile, textbooks are headed for sluggish times, as school budgets tighten. Professional books are having a tough year, also, but will resume a healthy growth pace in 1992. College textbook sales will pick up next year, mainly from the hefty price increases.

PUBLISHING END MARKET INDICATORS

				Annual Percent Change			
Consumer Spending (1)	**1989**	**1990**	**1991**	**90**	**91**	**92**	**93**
Books	11.39	12.45	12.87	9.3	3.4	7.7	7.2
Mags. & News	18.47	20.20	20.68	9.3	2.4	5.6	4.5
Consumer Spending (2)							
Books	8.20	8.46	8.11	3.2	0.6	3.0	2.6
Mags. & News	13.37	13.93	13.43	4.2	3.7	1.5	0.2
Publishers' Sales (3)							
Total	14.66	15.44	16.16	5.3	4.7	8.3	5.8
Adult Trade	2.72	2.87	3.03	5.5	5.5	10.1	7.2
Juvenile Trade	0.90	1.02	1.06	13.3	3.8	9.0	8.7
Mass Market	1.09	1.15	1.20	4.9	5.0	9.4	6.4
Professional	2.59	2.76	2.83	6.7	2.2	8.1	6.9
Elhi Texts	1.98	2.02	2.12	2.1	4.6	4.0	5.3
College Texts	1.84	1.99	2.04	8.1	2.6	5.8	5.6

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Book Market Bruised

Short Runs, Less Inventory

Soy-based inks and recycled papers are being tested by publisher and printer.

Fall is traditionally the biggest season for book publishers and printers. New titles from blockbuster authors are introduced, consumers are searching for a good read after the summer months, and the Christmas gift-giving season is approaching.

But this fall, publishers and printers are not expecting a sharp upturn in book sales, due to the continuing recession; nor do they expect a rise in the number of new titles, due to the onslaught of mergers and acquisitions. Book printers, in particular, are feeling the pinch as publishers reduce the number of new titles and shorten run lengths to lessen inventory. In fact, in 1990 there were 44,218 (according to *Publishers Weekly*) new titles published in the U.S., much less (in fact, 17.2% less) than the 53,446 new titles published in 1989. A spokesperson for the magazine notes this was the first "significant" drop in decades.

"Publishers are pushing in a number of directions," says Martin Edwards, president of Edwards Brothers, a sheetfed and web book printer headquartered in Ann Arbor, Mich. "To shrink inventory and to shrink costs, publishers are reducing first time orders and asking for faster reprints and just-in-time printing."

By Debora Toth
Project Editor

As print runs are reduced, book printers are finding their margins reduced. "In the consumer and trade market, there has been general improvement over the last year, but publishers are faced with greater pressure to market each book," says Gary Davis, vice president of marketing in the book division of R.R. Donnelley. "Publishers need to squeeze more out of the manufacturer. Margins are down and some printers are suffering out there."

To keep competitive, printers are updating their prepress departments, installing faster makeready equipment, and computerizing order and distribution facilities.

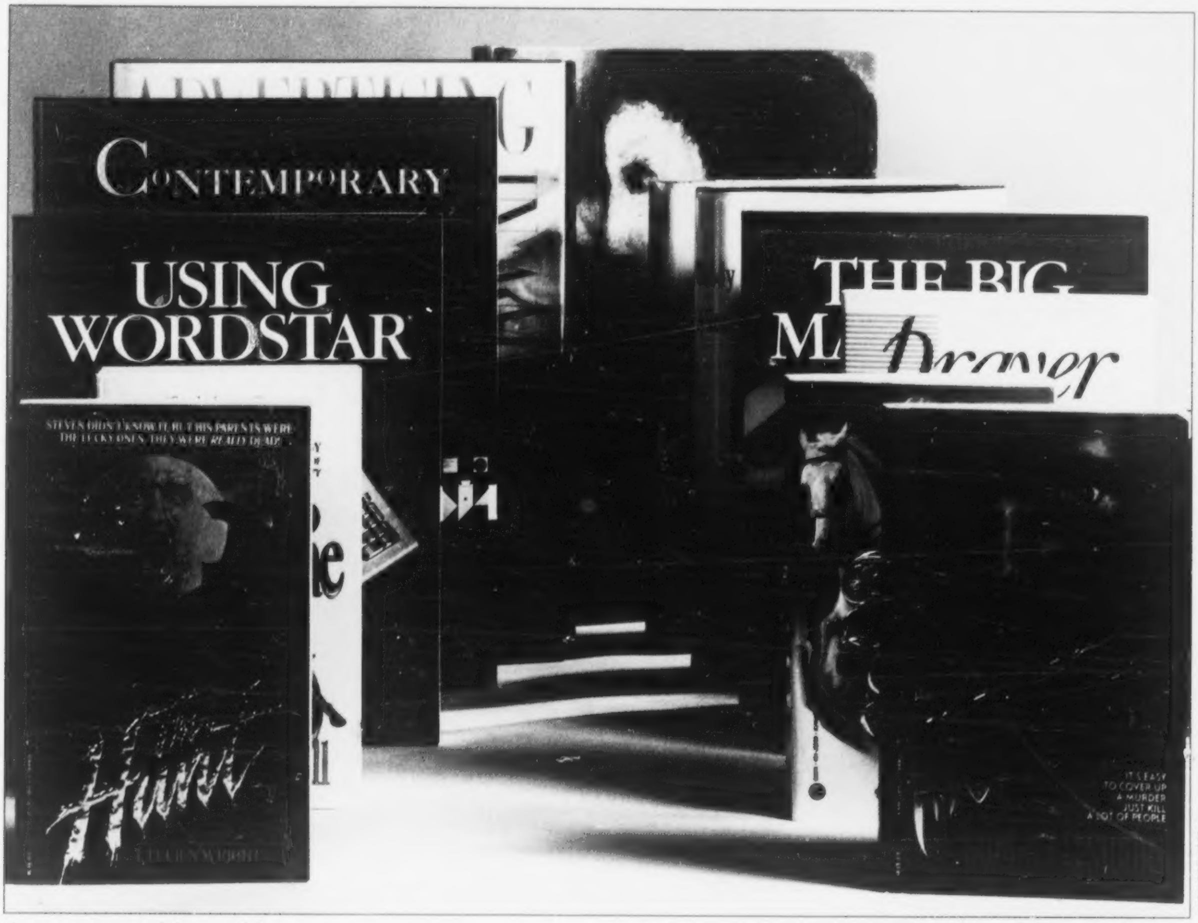
"Prepress is changing very rapidly," says Paul Alms, vice president of business development for Rand McNally. "Our problem is finding out which way it will go."

Desktop publishing, once used only in computer books, is growing across-the-board as publishers strive to lower overall costs. "Desktop publishing helps publishers save money," affirms Perry Rindfleisch, vice president of marketing and sales for the Banta Company. "Desktop bypasses book cover makeup and mock-up. Artists can draw the diagram on the computer, off-load it in digital form, and produce film."

Rather than buy new equipment and train a staff, Edwards Brothers bought a typesetting shop in December 1990 called Impressions, based in Madison, Wis.

Color continues to be a trend in the book arena, particularly in college and professional books. Nontraditional applications, such as color math books, are being introduced, and publishers use color as a marketing tool to attract sales.

And though the student population is rising—an estimated 44 million new students by 1995 in kindergarten through elementary grades—text book units are only slightly up, or flat, across



Peter Neumann

the country, and fewer titles are being published. Mergers and acquisitions are causing publishers to discontinue overlapping textbooks; state and local school boards, facing less revenue, are extending their school book buying cycles or looking for alternatives to textbooks.

"Texas and California are the two states spending the most for textbooks," says Banta's Rindfleisch. "But they are looking into CD-ROM material and student learning centers stocked with videotape."

Adds Donnelley's Davis, "Although there will be 400,000 new students added, primarily in the elementary grades, state expenditures are only estimated to rise in the 1% range. Schools are looking at floppy disks and CD-ROM rather than books."

For the past year, R.R. Donnelley has been offering its Books-On-Demand program to the college market through its affiliation with McGraw-Hill. The program allows professors to pick and choose chapters according to their course curriculum, giving the professor a custom-made text book. In addition, Donnelley can append any other course material, such as notes or papers, to the text book.

Typical Products

El-Hi Text Books
College Books
Religious Books/Bibles
Professional Books
Mass Market Books
Trade Books
Encyclopedias
Manuals

Typical Users

Book Publishers
Software Publishers

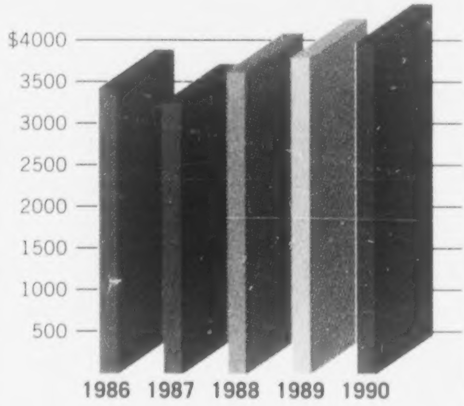
"Although we started it for the college market, it has applications across the board," says Gary Davis. "The initial trials were only for soft-cover books, but we have hard-cover capabilities as well."

With the shift to shorter press runs, printers are installing sheetfed equipment beside established web presses to straddle the market. "We are seeing a change in counts," says Donnelley's Davis, "but web is still competitive. There is a crossover where sheetfed is more favorable and we've opened our first sheetfed facility. We have to ask ourselves, though, 'Is this a long-term trend for publishers or just short-term managing of their assets?' "

Sheetfed shops, such as Edwards Brothers, are straddling

Book Printers

1990 Print Sales: $3.965 (millions) e



($ in millions)

Book Printers

Rank	Company	Sales in millions*
1	R.R. Donnelley & Sons Co.	507.0
2	Arcata Graphics Company	331.3
3	Banta Corporation	182.0
4	Rand McNally	170.0
5	Ringier America Inc.	150.0
6	Jostens, Inc.	149.0
7	Bertelsmann Printing & Mfg.	96.0
8	Courier Corporation	88.0
9	Herff Jones, Inc.	80.0
10	Maple-Vail Book Mfg. Corp.	75.0
	Taylor Publishing Co.	75.0

*Note: Preliminary Ranking e = estimate Source: PrintMarkets

Chart by Annabelle Carter

the market the other way by installing webs. A new one-color Timson web press was installed at Edwards Brothers last month.

Even in postpress, changes are taking place. Fullfillment and distribution, an area usually handled by the book publisher, is being switched to the book printer. "The publisher doesn't want to warehouse books anymore," says Banta's Rindfleisch. "With PubNet, a sophisticated computerized ordering system, small and large book shops can order books on demand. We're heading to the point where publisher, printer, and bookseller will be connected by computer, placing orders and invoicing on-line. Technology is improving so much that within this decade I predict printers will be able to print a book in a week on demand, giving publishers cost benefits and better inventory management."

Rindfleisch admits that Banta is looking at offshore printing sites, but no deals are finalized, while it continues to look in the acquisition area. R.R. Donnelley continues to expand its distribution facilities. Says Davis, "Our focus has been to be more than a printer. We want to be a full-service company. We've always done a great deal of distribution and that continues to be a great growth area."

Since the recession began, book printers are seeing increased competition from other types of printers who need to fill press time. "I call them mischief-makers," says Martin Edwards, president of Edwards Brothers. "They are printers from other niches, such as advertising, that don't have enough work to fill their presses, so they're cutting costs to entice publishers to place orders with them, and taking away our book business. At our company, we started to see a downturn in early March through late June. We're starting to operate more broadly in the professional and medical field printing technical journals."

Another area of concern to both publishers and printers is ecology. Soy-based inks and recycled papers are being tested by publisher and printer, while paper manufacturers race to introduced new products that meet the Environmental Protection Agency guidelines of 50% minimum preconsumer waste-paper fiber. "We're quite capable of using soy-based inks and manufacturing with recycled paper," agrees Donnelley's Davis.

Other publishers see opportunity in different areas. Banta Company recently purchased Bushman Press, a sheetfed documentation printer based in Provo, Utah. Bushman, a 10-year-old company specializing in computer documentation for the software market, produces softcover books and meshes well with Banta's Information Services Group.

One of the most optimistic areas for growth is in the juvenile book market. Year-to-date sales are up 5.8% over the same period last year, reflecting a trend among baby-boomer parents to purchase high-quality color books for their own children. "In the past year, we've seen an upswing with upscale parents buying nice-quality children's books, such as pop-up. They're willing to spend the extra money," says John Ayer, sales/marketing coordinator at Stratford Automation Inc.

To capture the juvenile and professional market, R.R. Donnelley opened a printing plant in Reynosa, Mexico in April 1991 [see GRAPHIC ARTS MONTHLY's December 1990 issue]. The sheetfed plant employing 350 caters to short-run book jobs. Its strategic location across the Texas border allows Donnelley to bring raw materials into Mexico, pay low labor costs, and truck, rather than ship, the books into the U.S. Its aim is to acquire some market share of the juvenile book printing being done in Asia and other parts of the world.

Book printers are facing a changing marketplace: losing shelf space in libraries, cuts in textbook spending from local and state school boards, and being asked to reduce lead time and print books on demand in the trade and retail markets. Those printers locked into the publisher and bookseller's pulse are the ones likeliest to grow, despite the vagaries of the economy. ▤

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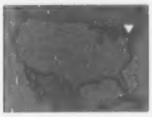
After the Fall, A Sluggish Climb



There are only three states in this region: New York, New Jersey, and Pennsylvania. You'd think that a certain sameness would exist, that these three states, nestled together as they are, would be a great deal alike.

But you'd be wrong if you thought that. For example:

The State of New York consists of small cities and towns, vast rural areas, and the city of New York, where around 60% of the state's population lives.

Pennsylvania, by way of contrast, is a rural state with Philadelphia at one end, and Pittsburgh at the other. In fact, Philadelphia and Pittsburgh are the only cities in the state with populations of more than 100,000—a situation that deeply affects Pennsylvania's political and economic life.

This brings us to New Jersey, which is wildly different from its neighbors and is in some ways the most interesting of the three. Look at the population and migration figures. New York and Pennsylvania have both lost population, and if you look at New Jersey's numbers you can see where a lot of them went. They didn't leave the region, they crossed the river.

New Jersey is the classic suburban state. This has led to a lot of unkind jokes about New Jersey, but in fact the state is strangling on its own success. The population density of New Jersey is 1,020 people per square mile, which puts it not only way ahead of New York (375/sq mi) and Pennsylvania (265/sq mi), but of India (538/sq mi) as well. There are more densely populated places than New Jersey—Bangladesh (1,579/sq mi), for example—but by most standards it is *packed.*

Which is tough if you want to be a rancher, but from the point of view of the printing industry it's not so bad. In fact, the vast bulk of the printing industry in this region is contained in a corridor about 100 miles long that runs from the northern suburbs of New York City through the entire state of New Jersey to Philadelphia and its suburbs. The Mid-Atlantic is the second largest region in terms of printing volume (the East North Central is far and away the leader).

Like the rest of the Northeast, this region has been in a fairly severe recession for the past three years. There are some signs that the worst may be over, but our research indicates that for the near term, growth will come from steady, careful attention to business rather than from any new economic boom.

Inside this detachable fold-out form we present a general profile of the graphic arts industry in the Mid-Atlantic region, a close look at commercial printing, demographic data, and listings of leading printers in major markets. Data sources are given on the charts and tables.

The most revealing portion presents survey results among commercial printers. It shows sales changes from 1989 to 1990, the extent of those changes, profitability and capacity comparisons, and a business perception index.

Reprints of this installation of Print Market Trends may be ordered from Cathy Dionne, Cahners Publishing Company, Reprint Department, 1350 E. Touhy Ave., Des Plaines, Ill., 60018. ⊟

NEW YORK
PENNSYLVANIA

Jean Wisenbaugh

By Peter Johnston
Special Projects Manager

Regional Overview

Commercial printing contributes nearly 17 billion dollars annually to the economy of the Mid-Atlantic region, making it an important source of employment opportunity, capital generation, and tax revenue. Of the region's 7,272 printing sites (re PIA; commercial printers), nearly 4,000 are in New York, with the balance divided almost evenly between New Jersey and Pennsylvania. Revenue figures in the charts are in constant dollars; they are not adjusted for inflation. Real industry growth for the region in 1989-1990 was around 3%.

COMMERCIAL PRINTING

Value of Shipments

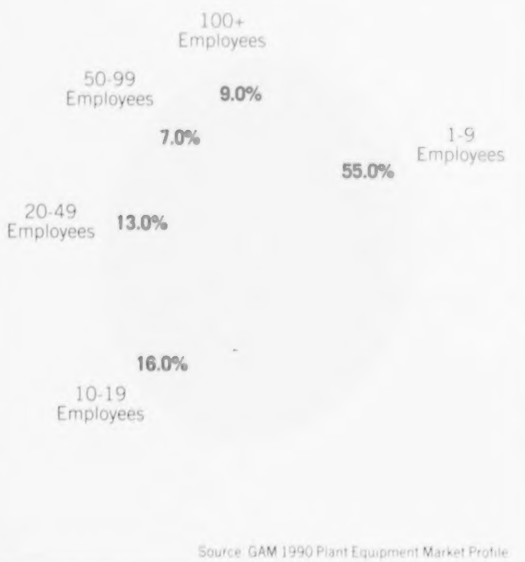
State	Sales, 1990 ($ million)	% of Region	Sales, 1989 ($ million)	% change (1989-1990)
New York	$6,422	43.7%	$6,040	6.3%
Pennsylvania	4,666	31.9%	4,360	7.0%
New Jersey	3,582	24.4%	3,336	7.4%
TOTAL	**$14,670**	**100%**	**$13,736**	**6.8%**

Printing Sites

State	Sites
New York	3,984
New Jersey	1,655
Pennsylvania	1,633
TOTAL	**7,272**

Source: PIA Economics Department

All Graphic Arts Plants, by Employee Count



Source: GAM 1990 Plant Equipment Market Profile

Charts and graphs by Lisa Hilgers

All Graphic Arts Plants, by Function

Function	# of Plants
Commercial	5,220
Newspaper (w/Commercial)	180
Newspaper (w/o Commercial)	310
Book & Pub	473
Business Forms	146
Converters	456
Noncommercial	1,508
Trade	931
Quick Printers	753

Source: GAM 1990 Plant Equipment Market Profile

DEMOGRAPHICS

As noted on the cover page, there seems to be some shifting of population within the region as well as migration to other areas. (In the early 1980s there was a fair amount of migration to the Southwest, a phenomenon that, due to economics, has largely ceased.) Education levels in the three states reflect their basic demographics—highest in New Jersey, which is primarily suburban, lowest in heavily rural Pennsylvania.

Population

State	Population	Rank
New York	17,772,000	2
Pennsylvania	11,888,000	4
New Jersey	7,619,000	9
TOTAL	**37,279,000**	

Population Changes

State	Change (1980-86)	Net Migration
New Jersey	3.5%	62,000
Pennsylvania	0.2%	-210,000
New York	1.2%	-281,000

Educational Attainment

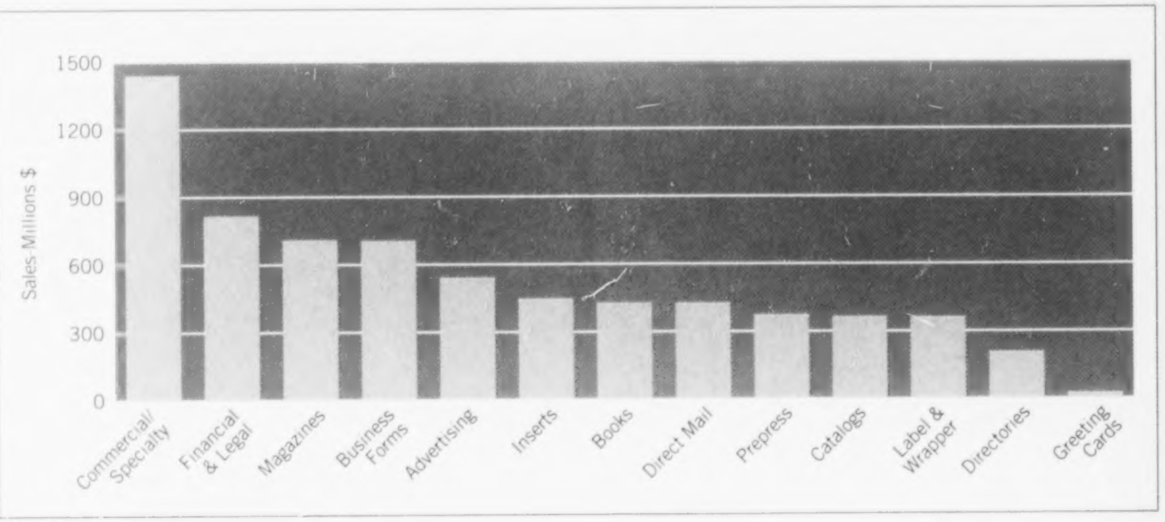
State	High School Graduates	College Graduates
U.S. Average	66.5%	16.2%
New Jersey	67.4%	18.3%
New York	66.3%	17.9%
Pennsylvania	64.7%	13.6%

Source: U.S. Dept. of Commerce, Bureau of the Census

Market Profile

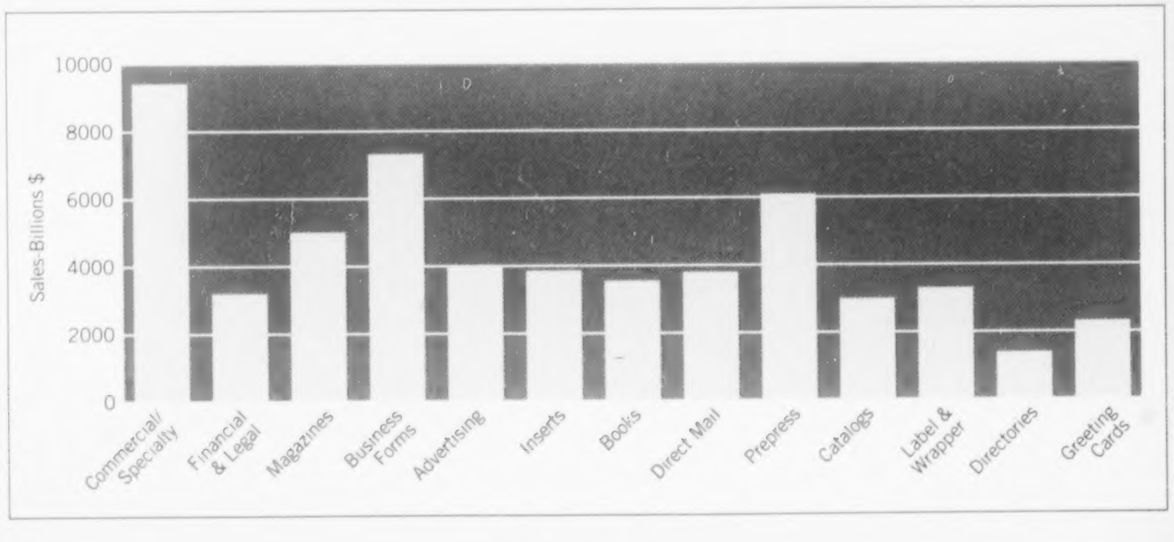
Ranking of Product Segments . . .

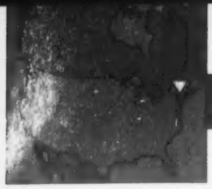
This ranking is taken from a data base of larger (20+ employees) plants in the region, with a preponderance of very large sites. Interestingly, prepress, the third-largest segment nationally, ranks ninth in this region, even though the New York metropolitan area is known as a prepress center and has many of the nation's largest separators. One possible explanation of this is the existence of centralized front-end centers for the nation's largest printers in other areas.



. . . Compared to National Totals

These bar charts are presented in similar order to simplify comparison between segment concentration in the Mid-Atlantic region and the U.S. as a whole. Note that the regional importance of financial & legal printing, which is concentrated in a small number of U.S. cities, is not reflected in the national picture, and that greeting cards, labels & wrappers, and catalog printing play a proportionately much smaller role in the the Mid-Atlantic than they do nationally.





Leading Printers in the Region

NEW JERSEY

Able Printing, Cherry Hill
Alford Industries, Ridgefield Park
Arcata Graphics/Fairfield
Barton Press, West Orange
Compton Press, Morris Plains
Greater Jersey Press, East Brunswick
Horowitz/Rae Book Mfr., Fairfield
Lasky Company, Millburn
Lehigh Press, Cherry Hill
Lincoln Graphics, Cherry Hill
MacNaughton Lithograph, Fair Lawn
Mars Graphic Services, Westville
Meehan-Tooker, East Rutherford
Panorama Press, Clifton
Paris Business Forms, Burlington
Sandy Alexander, Clifton
L.P. Thebault, Parsippany
Webcraft Technology, North Brunswick

NEW YORK

Ameriscribe Mgt. Svc., New York City
Applied Graphics Tech., New York City
Bowne & Company, New York City
Case-Hoyt, Rochester
Direct Press Modern Litho.
Huntington Station
Herst Litho, New York City
Ivy Hill, New York City
Kwik Int'l., New York City
Latham Process Corp, New York City
Master Eagle Graphic Svcs., New York City
Potomac Graphic Ind., New York City
Queens Group, Long Island City
Shorewood Packaging, Farmingdale
Tabard/Copley Graphics, New York City
Tanagraphics, New York City
U.S. Banknote, New York City

PENNSYLVANIA

Braceland Brothers, Philadelphia
Brown Printing/Eastern, Hanover
Butler Color Press, Butler
Consolidated Revere Graphics, Philadelphia
R.R. Donnelley/Lancaster
Globe Ticket & Label, Paoli
Interform Corporation, Bridgeville
International Litho, Philadelphia
Mack Printing, Easton
Maxwell Communications, Atglen
National Publishing, Philadelphia
Panel Prints Inc., Old Forge
Safeguard Bus. Systems, Fort Washington
Sheridan Group, Hanover
Smith-Edwards-Dunlap, Philadelphia

Source: Graphic Arts Monthly, 1991 GAM 101 Listing of Top Printers in the U.S.

How Printers Are Doing

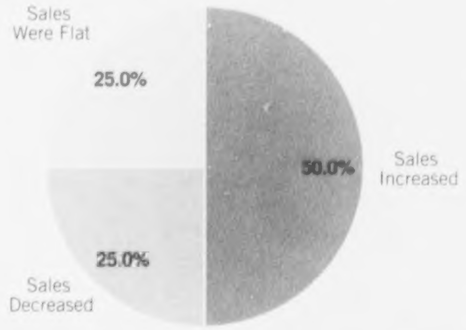
Based on a survey of firms in the region, conducted by Cahners Publishing

Profile of Respondents

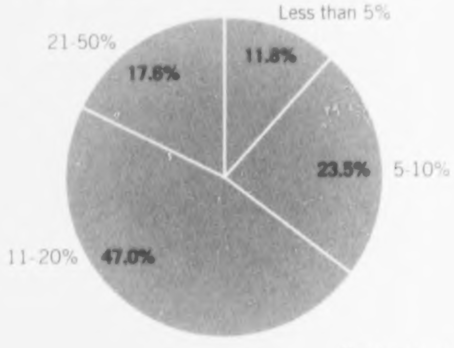
Commercial printers in all regions of the United States responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. The following information is as reported by survey respondents; 1990 gross sales were estimated.

Gross Sales in 1990		# of Employees	
Less than $500,000	7.5%	1-4	2.5%
$500,000-749,000	17.5%	5-9	15.0%
$750,000-999,000	7.5%	10-19	30.0%
$1 million-2,499,999	25.0%	20-49	30.0%
$2,500,000-4,999,999	15.0%	50-99	15.0%
$5,000,000-9,999,999	25.0%	100+	7.5%
$10 million or more	2.5%		

How Sales Changed, 1989 to 1990

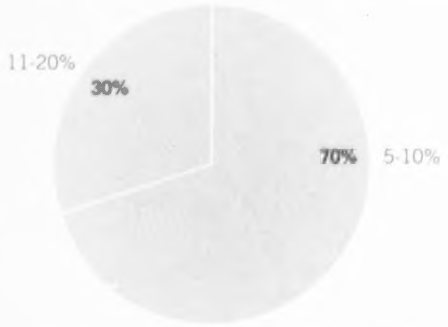


If Sales Increased, How Large Was Increase?



More than 50%=0

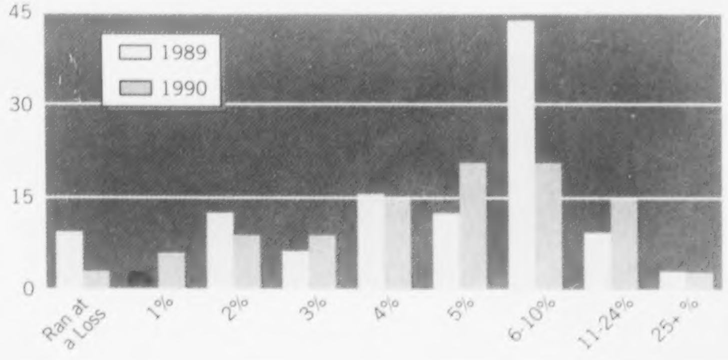
If Sales Decreased, How Large Was Decrease?



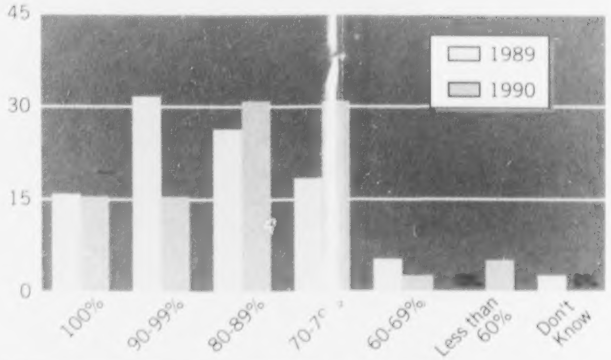
Less than 5%, 21%-50% & more than 50%=0

PROFITABILITY & CAPACITY

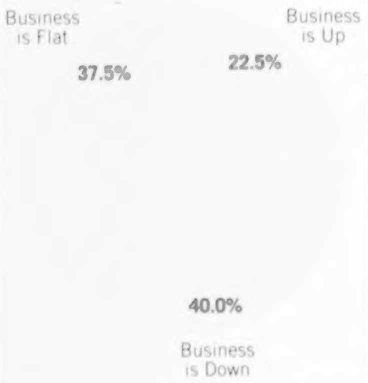
Profit as a percentage of gross sales



Operating percentage of plant capacity



Perception Index



Comments by Printers

- We're growing at a slower rate than in the past, but still growing.
- Printers from outside this area are penetrating the market and are pricing below cost.
- Business is good in specialty packaging.
- Larger companies are moving out of the Northeast to areas of lower labor and tax expenses.
- Unless you specialize, you are dead.
- Salespeople's comments indicate most print shops are slow.

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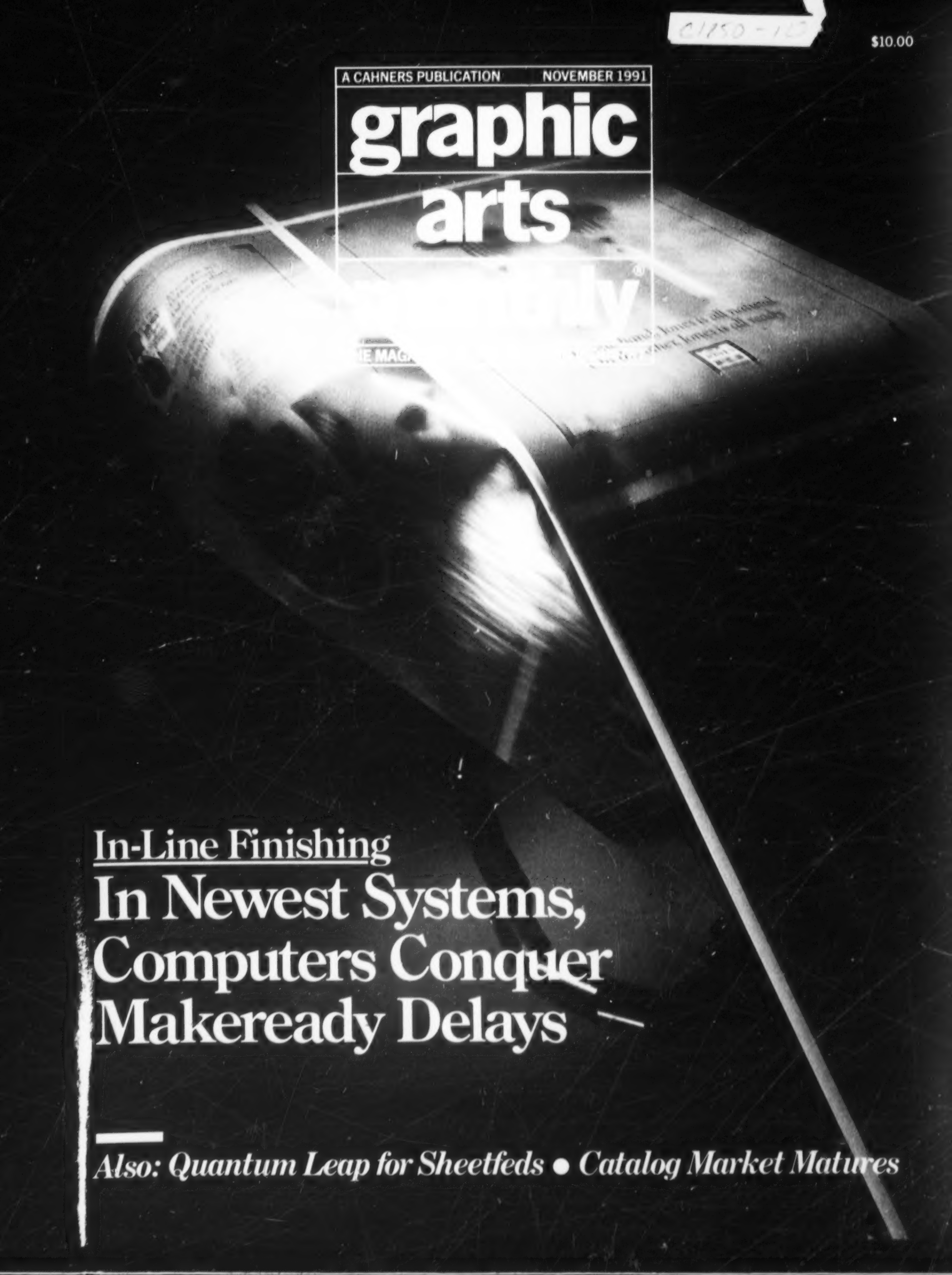

In-Line Finishing

In Newest Systems, Computers Conquer Makeready Delays

Also: Quantum Leap for Sheetfeds • Catalog Market Matures

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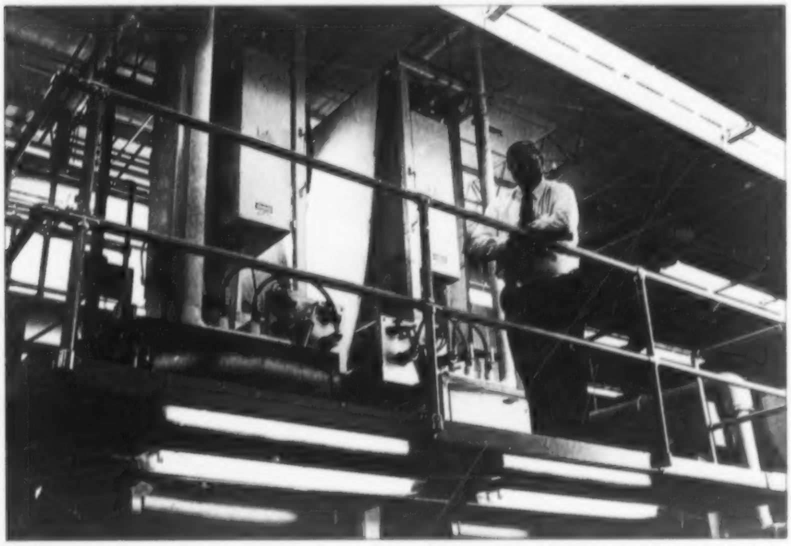
FEATURES



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A previously difficult, time-consuming, expensive, and off-site operation is finally brought on-line.
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Ronald C. Andriani

Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken, Lisa Cross

Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston (212) 932-3368

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Jeff Rothstein

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager
Richard Negri (212) 463-6827

Business Manager Jerry Arotsky

Contracts Jeffrey Rothstein

Production Manager
Daniel Coakley (212) 463-6545

Promotion Manager
Dorian Torregrossa

Research Manager
Angela Venturino Darchi

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Bulk Reprints Carol Bien
1-800-323-4958

Supplement Reprints Cathy Dionne
1-800-523-9654

Group Circulation Manager
Eric Schmierer (303) 388-4511

Subscriptions/Back Issues
1-800-637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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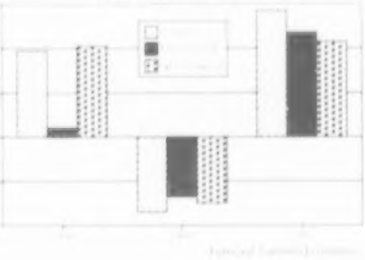
A Turnaround in Paper Production

Paper Shipments

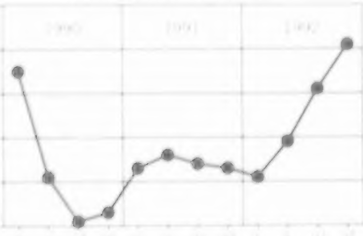


Forecast: Cahners Economics

Paper production, although well below year-ago levels, has shown signs of turning around toward the positive end of the spectrum by the end of the year. July posted the first monthly year-over-year gain so far in 1991. Total production reached 3.34 million tons, up 1.7% above July 1990. Most of this gain stemmed from a pickup in the printing and writing paper segment. The American Paper Institute reports that seasonally adjusted shipments of printing-writing papers increased to the record-high levels established in late-1990. In particular, shipments of uncoated free sheet papers have made gains, as the demand for bond paper increases. The outlook is for flat production by year-end, totalling just 39 million tons. Expected increases are for 5.1% in 1992 (to total 41 million tons) and 1.3% in 1993, to over 41.5 million tons.

Paper Prices Remain Favorable

Paper Producer Price Index



Forecast: Cahners Economics

The prevailing weakness in the paper processing industry means continued price benefits for printers. Earlier this year, paper producers acted on hopes of a pickup in economic activity which never materialized. Beefed-up production levels were met by low levels of demand from the end markets. Faced with building inventories, paper manufacturers have kept prices low to stimulate demand. The producer price index posted its sixth consecutive monthly decline in August, to stand 2.7% below the year-ago level. Typically, paper price inflation gains momentum when capacity utilization passes the 90% mark. Right now, paper capacity utilization stands at 85% and will not reach the 90% range for at least another year. Our paper price forecast calls for a 0.4% rise in 1991, a 3.1% gain in 1992, and a 5% increase in 1993. [For more information on paper market trends, see the Paper column in this issue, on p. 110.]

In the second quarter of 1991, transaction prices of most paper grades dropped even further, as measured by *Purchasing* magazine's transaction pricing service. For many paper grades, this represents a full year of price reductions. This month's datatable highlights paper prices by grade and shows our latest forecasts. Paper prices will begin to turnaround by the end of this year. Forecasts for 1992 show paper prices heading back up but still won't reach the high levels seen in 1989.

PAPER INDUSTRY INDICATORS

				Annual % Change		
Shipments (1)	**02/90**	**01/91**	**02/91**	**1990**	**1991**	**1992**
Coated paper	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Uncoated groundwood	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.7
Uncoated free sheet	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.7
Transaction Prices (2)						
Newsprint [illegible]	$[illegible]	$[illegible]	$[illegible]	[illegible]	1.2	3.7
Directory uncoated groundwood [illegible] white	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Supercalendered uncoated groundwood [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.0
Offset uncoated groundwood	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.1
Offset uncoated white [illegible]	[illegible]	[illegible]	[illegible]	1.7	[illegible]	5.9
Coated No. 1 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.3
Coated No. [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9.1
Coated No. 5 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.3
Bond uncoated white No. 1 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.1	7.8
Bond uncoated white No. 1 [illegible]	[illegible]	[illegible]	[illegible]	10.1	7.1	12.9

(1) Thousands of short tons, American Paper Institute. (2) Dollars per ton, *Purchasing* magazine's Transaction Pricing Service. All forecasts by Cahners Economics.

Catalogs: A Mature Market

Once-explosive growth has leveled off, largely due to increased postal rates and a bad economy.

By Lisa Cross
Associate Editor

Many of them come to your doorstep, some anxiously awaited, others uninvited and unwanted. But even these often find a berth on a shelf or table in your house. Every household and office in the United States has received these printed items at least once. They are catalogs, offering a wide array of products and services to be purchased by both consumer and business markets.

As a printing market segment, catalogs experienced high single- and double-digit growth in the 1980s. Catalog print orders catapulted when the home-shopping third-class direct-mail catalog became a viable alternative for those consumers who lack time to get out to the stores. New catalogers entered the field, and the number of catalogs published rose from 5.8 billion in 1980 to 13.6 billion in 1990.

However, this once-explosive growth has begun to level off largely due to increased postal rates, a bad economy, the Persian Gulf War, and a maturing of the catalog market.

"We have definitely been affected by the recession in that we've had a lot of growth, but we're just not growing as fast as we used to," explains Joe Arriola, chief executive officer, Avanti Press, Miami, Fla.

Catalog suppliers, in turn, have responded by expanding services and discovering ways to cut clients' costs.

"We're becoming a lot more involved, from the creativity right through the delivery to home," observes Terry Tevis, chief executive officer, American Signature Graphics, Memphis, Tenn.

In the last decade, catalogs evolved from the Sears all-purpose, everything-in-one-book, 600-page catalog, to focused 32-, 64-, and 96-page catalogs aimed at consumers identified by demographics as potential buyers.

"These specifically focused catalogs led to a huge growth year-to-year throughout the '80s as big catalogers focused on various market segments, and new entrepreneurs entered the field," recalls Tevis.

If growth best describes the last 10 years, then what do catalog printers envision for the '90s? They describe 1991 as a year of readjustment; some predict it will be flat, but most still believe the '90s hold promise, but won't reflect the last 10 years.

"We anticipate some growth in 1992, but it will tend to be slow, probably similar to GNP growth," reports Ed Davis, product specialist at R.R. Donnelley & Sons Catalog Group, Chicago.

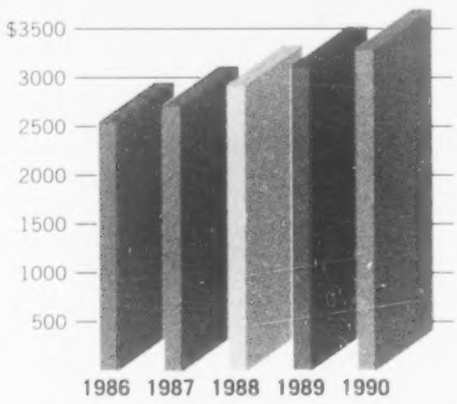
Jim Fogg, president, Banta Catalog and Commercial Groups, Menasha, Wis., notes: "Catalogers have had somewhat of a downturn this year, but it is a coming market. You've got more two-person family earners looking for a more convenient, less time-consuming way to shop."

Adds Rod Barbera, vice president of marketing, web division, Perry Printing, Waterloo, Wis., "1991 was a year of readjustment. We did see some growth among certain segments of the catalog market, rather than overall growth. We expect slight-to-modest growth in 1992."

As printers for merchandis-

Catalogs

1990 Print Sales: $3,284 (millions) e



($ in millions)

Major Printers—Catalogs

Rank	Company .... Sales in millions*
1	R.R. Donnelley & Sons Co.......875.0
2	Ringier America, Inc. 210.0
3	American Signature..................140.0
4	QuadGraphics, Inc....................125.0
5	Quebecor Printing (USA).........120.0
6	Banta Corporation....................108.0
7	Brown Printing Company.........105.0
8	Alden Press, Inc. 100.0
9	Continental Graphics Holdings ..60.0
	Graphic Arts Center...................60.0

*Note: Preliminary Ranking   e = estimate   Source: PrintMarket

Chart by Annabelle Carter

zip codes, up from 250. By law, alternate delivery companies may not leave deliveries in the mail box.

"This last postal rate increase has definitely had a dramatic effect on our business. Clearly, we are now a cost effective alternative," reports Bernstein.

Increases in postal rates have given printers the chance to increase value-added services aimed at reducing the customers'distribution costs. Even before the postal rate hike, printers started to place dramatic emphasis on the binding and mailing of the final product.

Observes Tevis, "A catalog printer is no longer just a printer; a catalog printer is a distributor that happens to print catalogs. We must find ways to minimize any kind of postal increase."

To slash clients' postal costs, most major catalog printers have the ability to drop ship and comail catalogs—different companies' catalogs combined in the same mailing line.

Drop shipping simply means the catalogs are shipped to the postal center closest to where the catalogs are to be distributed, rather than the post office picking them up at the printer's dock. Postal discounts are given for sharing the work with U.S. Postal System.

By comailing similar sized, noncompeting catalogs, a publisher can qualify for discounts based on an increase in volume.

"The printer now has to be involved much earlier in the catalog production process. We don't just worry about getting film in so we can get on press and then to the bindery. We now consider how and when it is going to be shipped and the various cost advantages and disadvantages," explains Tevis.

The postal increase has also forced catalogers to look for better ways to optimize their mailings. Catalogs targeted to select groups and personalized with ink jet messaging and addressing are now the norm. Printers have made investments in developing demographic binding. Demographic binding offers the ability to have mutliple catalog versions in a single-catalog run. Theoretically, catalog publishers can save money with demographic binding because they can send fewer copies but get a higher response and larger order sizes if their targeting is successful.

In addition to investments in the back-end, another area in the catalog production process where printers are embracing new technology and expanding services is in prepress.

To save time, control costs, and gain more control over the finished product, a number of catalog publishers are creating their catalogs on the desktop.

"In the '70s we said, 'Give us film and we'll go to press.' In the '90s we're saying 'Give us a disc-,we'll run it through our desktop application,' " explains Tevis.

Adds Barbera, "Some clients are sending work in on discs, while others are working with separators to swap high- and low-resolution color files."

Much has changed for the catalog printer in the attempt to satisfy customer needs. So what will it take to make the grade in the 1990s? Printers point to the following:

- "You must understand your customer," explains Harold Foster, executive vice president, Metro Seliger Industries, Inc., Woodside, N.Y. "We never sold printing per se, we sold what it can do for you."
- "Printers must be flexible, offer cost savings, and have a good understanding of their customers, as what they are producing is critical to the client's business," says Scheiber.
- "Ours is a rapidly changing business, and printers must have the ability to invest in new technology and equipment where it will benefit their customers," notes Davis.
- "Catalog printers have to understand customer needs, and then develop a manufacturing expertise to meet those expectations," observes Tevis.

No doubt about it: today's catalog printer must work harder to get an order. The bottom line is being able to understand the client and identify opportunities for value-added services. After all, it's the printer's catalog of services that will gain and retain the publishers' business.

graphic arts monthly

The Lone Star Shines Above

It is a little hard not to feel sorry for Louisiana, Arkansas, and Oklahoma as you look at the West South Central region; like the newly emerging Baltic states, they are caught in the orbit of a prodigiously oversized neighbor. In fact, there is a folk saying in another nearby state that neatly captures their predicament: "Poor New Mexico," it goes. "So far from Heaven; so near to Texas."

Not, we hasten to add, that there's anything inherently dreadful about Texas; it's just that there's so *much* of it. In the West South Central region it has 60% of the land, 62% of the people, 69% of the printing sites, and almost 73% of the printing volume. And, as they say in Oklahoma, 100% of the –.

But never mind that. In any case, speaking in very round numbers, Texas is responsible for about 70% of the economic activity in this region, with a roughly equal division among the others. Texas has the sixth-largest commercial printing volume of the states, after California, New York, Illinois, Pennsylvania, and Ohio, according to Printing Industries of America.

Like those states, it has become primarily urban, as has the entire region. Oklahoma City, Tulsa, New Orleans, Little Rock, Lake Charles, Fort Worth, Austin, San Antonio, and Dallas are all substantial cities, and Houston has become a sprawling metropolis—the fourth-largest city in the U.S.

By Peter Johnston
Special Projects Manager

Economically the region seems to be in pretty good shape, particularly when compared to New England or the Mid-Atlantic. It was hit very hard by a downturn in oil prices in the early 1980s, followed by what amounted to a general collapse of the region's financial infrastructure. (The series of events that nearly brought down Continental Illinois Bank began in Oklahoma, and the subsequent savings-and-loan debacle saw its fullest and most luxuriant flowering in Texas.) Since then, the old oil-and-agriculture mainstays have given way to a much more diversified regional economy, which, as noted, appears to be fairly healthy.

Judging from the responses of our readers surveyed in the area, the printing industry is sharing in this state of health. Almost 78% of them reported an increase in business from 1989 to 1990; of those, more than half had increases greater than 10%. Of those reporting a decrease, better than two-thirds had a dropoff of less that 10%.

Profitability also seems to be on the rise; 58% of respondents showed margins above 5% for 1990, versus 38% for the year before. The same pattern is reflected in reported capacity usage; respondents operating at 80% capacity or greater: 47% in 1989, 68% in 1990.

Optimism runs high here; in our Perception Index, more than 46% said they thought business was up—the highest reading in the country. (National average: about 28%.)

This detachable form contains an industry profile, a close look at commercial printing, demographic data, and listings of leading printers.

Reprints of this installation may be ordered from Cathy Dionne, Cahners Publishing, Reprint Department, 1350 E. Touhy Ave., Des Plaines, IL 60018.

OKLAHOMA
ARKANSAS
TEXAS
LOUISIANA

Jean Wisenbaugh

Regional Overview

Commercial printing contributes nearly $6 billion annually to the region's economy, making it an important source of employment opportunity, capital generation, and tax revenue. Of 3,194 printing sites, more than 2,000—i.e., 69%—are in Texas. Louisiana and Oklahoma tie for second place, followed by Arkansas. Revenue figures given in the charts are in constant dollars. Real industry growth from 1989 to 1990 was around 4%.

COMMERCIAL PRINTING

Value of Shipments

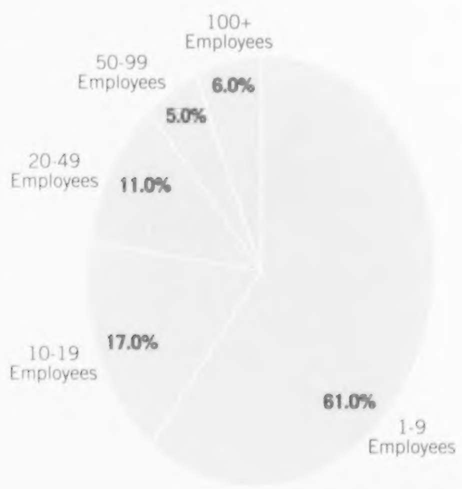
State	Sales, 1990 ($ million)	% of Region	Sales, 1989 ($ million)	% change (1989-1990)
Texas	$4,056	72.7%	$3,800	6.7%
Louisiana	536	9.6%	489	9.6%
Oklahoma	518	9.3%	482	7.5%
Arkansas	468	8.4%	432	8.3%
TOTAL	**$5,578**	**100%**	**$5,203**	**7.2%**

Source: PIA Economics Department

Printing Sites

State	Sites
Texas	2,219
Oklahoma	418
Louisiana	372
Arkansas	185
TOTAL	**3,194**

All Graphic Arts Plants, by Employee Count



Source: GAM 1990 Plant Equipment Market Profile

Charts and graphs by Lisa Hilgers

All Graphic Arts Plants, by Function

Function	# of Plants
Commercial	1,952
Newspaper (w/Commercial)	121
Newspaper (w/o Commercial)	150
Book & Pub	144
Business Forms	70
Converters	80
Noncommercial	455
Trade	175
Quick Printers	304

Source: GAM 1990 Plant Equipment Market Profile

DEMOGRAPHICS

During 1980-86, there was much migration to the region, primarily to Texas. Although the local economy has had its ups and downs, this trend toward population increase seems to be continuing. Note the disparity in education levels, particularly in college graduates.

Population

State	Population	Rank
Texas	16,685,000	3
Louisiana	4,501,000	18
Oklahoma	3,305,000	25
Arkansas	2,372,000	33
TOTAL	**26,863,000**	

Population Changes

State	Change (1980-86)	Net Migration
Texas	17.3%	1,331,000
Oklahoma	9.2%	120,000
Louisiana	7.0%	8,000
Arkansas	3.8%	10,000

Educational Attainment

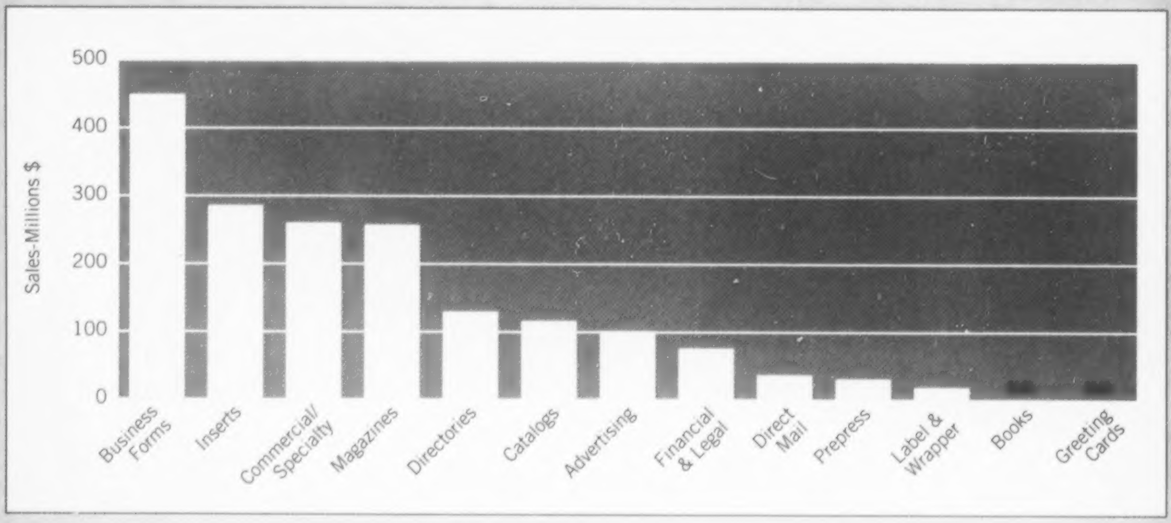
State	High School Graduates	College Graduates
U.S. Average	66.5%	16.2%
Oklahoma	66.0%	15.1%
Texas	62.6%	16.9%
Louisiana	57.7%	13.9%
Arkansas	55.5%	10.8%

Source: U.S. Department of Commerce, Bureau of the Census

Market Profile

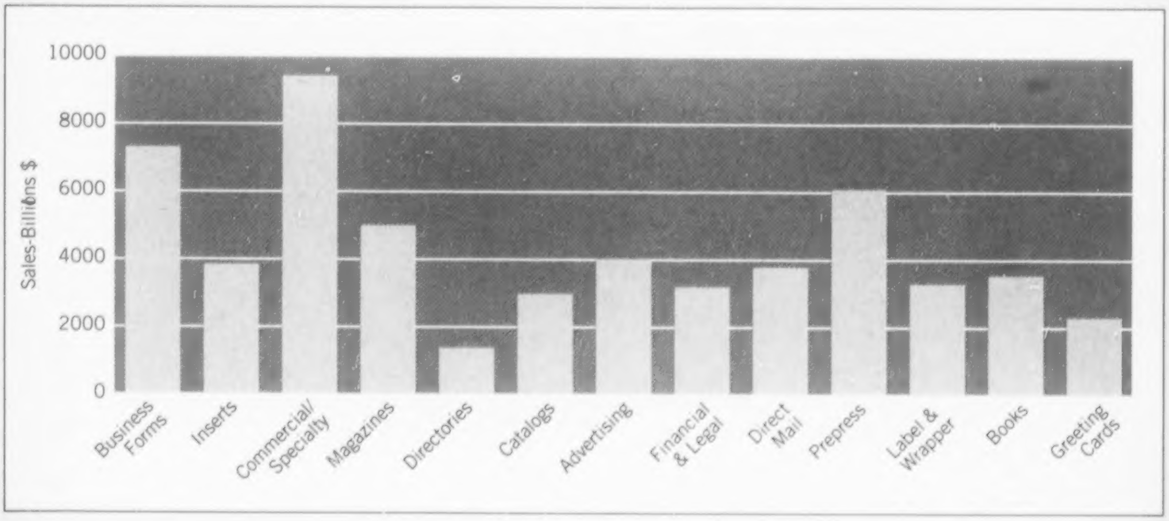
Ranking of Product Segments . . .

This ranking is taken from a database composed mainly of larger plants in the region (companies employing 20 or more workers), with a preponderance of very large sites. The dominance of business forms is partly attributable to the presence of Ennis Business Forms in Texas, which accounts for more than a quarter of the volume shown; this situation occurs occasionally in other regions. Prepress, ranked third nationally, is tenth in the region, suggesting the presence of large divisions of multi-site firms printing materials whose front-end work was done elsewhere.



. . . Compared to National Totals

These bar charts are presented in similar order to simplify comparison between segment concentration in the West South Central region and the U.S. as a whole. Note that though they are ordered somewhat differently, the largest segments (except prepress) track each other fairly closely. There are, however, some other disparities; greeting cards and book printing generate so little activity in the West South Central region as not to show up on the chart at all. Also, catalogs and directories rank low in national standings, but the segments appear toward the center in this region.



Leading Printers in the Region

ARKANSAS

Creative Printing, Little Rock
Democrat Ptg & Litho, Little Rock
International Graphics, Little Rock
Ringier America, Inc., Jonesboro
Weidon Williams & Lick, Inc., Fort Smith

LOUISIANA

Castle Multiforms, Inc., Shreveport
Century Graphics Corporation, Metarie
Harvey Press, Inc., New Orleans

OKLAHOMA

Central States Business Forms, Dewey
Colorgraphics, Tulsa
Norick Brothers, Inc., Oklahoma City
Oklahoma Graphics, Oklahoma City
PennWell Printing Company, Tulsa
World Color Press, Inc., Stillwater

TEXAS

Adplex, Inc., Houston
All-States Business Products, Carrollton
American Printers, San Antonio
American Signature Graphics, Dallas
Bennett Printing, Dallas
Blanks Engraving Company, Dallas
Bowater Computer Forms, Inc., Plano
Clarke American, San Antonio
Ennis Business Forms, Inc., Ennis
GBP Industries, Lufkin
Graphic Arts, Ft. Worth
Greater Houston Publishers, Houston
GTE Directories Corporation, DFW Airport
Gulf Printing Company, Houston
Hart Graphics, Inc., Austin
Heritage Press, Inc., Dallas
Horticultural Printers, Inc., Mesquite
Hurst Printing, Dallas
The Lehigh Press, Inc., Dallas
The Lehigh Press, Inc., Carrollton
F.L. Motheral Printing, Ft. Worth
MPI Label Systems, Grand Prairie
Newspaper Enterprises Inc., Dallas
Nortex Press, Wichita Falls
Optigraphics Corporation, Grand Prairie
The Printing Center, Fort Worth
Quebecor USA, Dallas
Retail Graphics Printing, Dallas
The Riverside Press, Inc., Dallas
Royal Business Forms, Inc., Arlington
Royer & Schutts, Fort Worth
Taylor Publishing Co., Dallas
Texas Stock Tab, Coppell
Treasure Chest Advertising, San Antonio
Treasure Chest Advertising, Grand Prairie
Wetmore & Company, Houston
Williamson Printing, Dallas
Wilson Engraving Company, Inc., Dallas

Sources: Graphic Arts Monthly, Trade & Technology Press

How Printers Are Doing

Based on a survey of firms in the region, conducted by Cahners Publishing

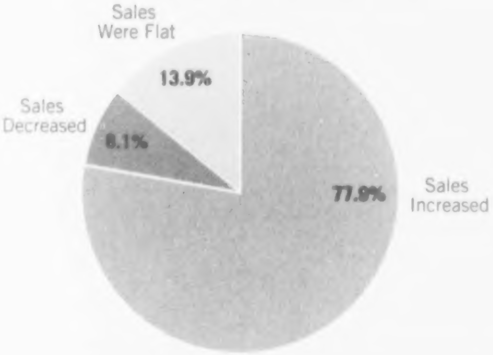
Profile of Respondents

Commercial printers in the West South Central region responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. The following information is as reported by survey respondents; 1990 gross sales were estimated.

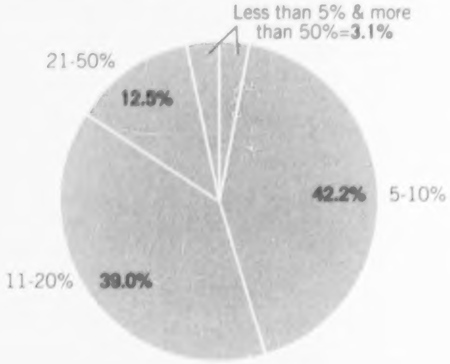
Gross Sales in 1990	
Less than $500,000	9.2%
$500,000-749,999	21.8%
$750,000-999,999	12.6%
$1 million-2,499,999	20.7%
$2,500,000-4,999,999	13.8%
$5,000,000-9,999,999	19.5%
$10 million or more	2.3%

# of Employees	
1-4	0%
5-9	13.0%
10-19	39.5%
20-49	24.4%
50-99	17.4%
100 +	4.6%

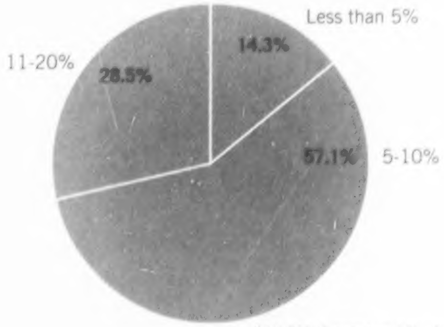
How Sales Changed, 1989 to 1990



If Sales Increased, How Large Was Increase?



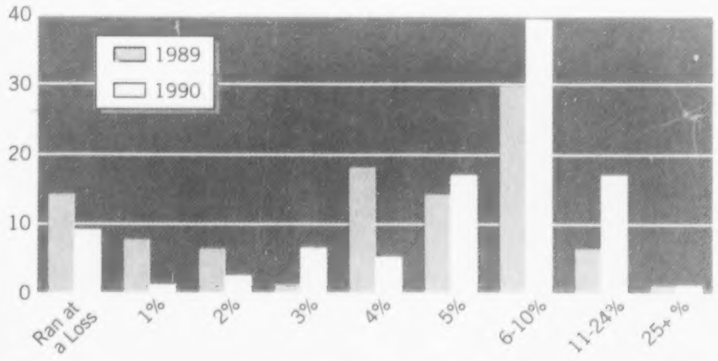
If Sales Decreased, How Large Was Decrease?



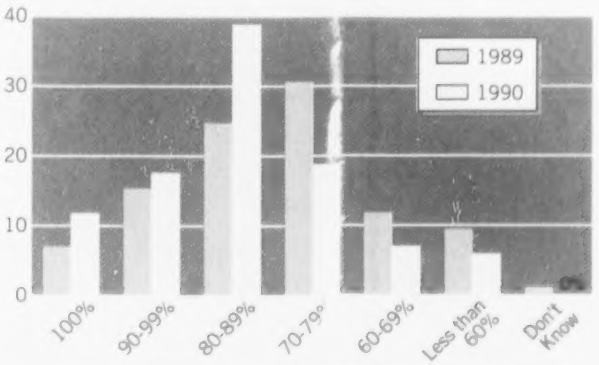
21%-50% & more than 50%=0

PROFITABILITY & CAPACITY

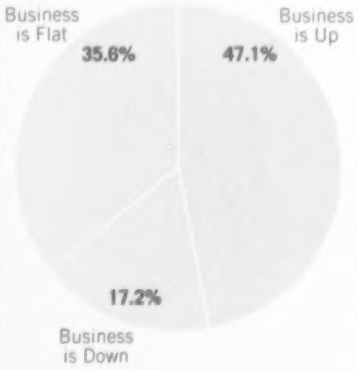
Profit as a percentage of gross sales



Operating percentage of plant capacity



Perception Index



Comments by Printers

- Changing very rapidly; some businesses are closing or converting to desktop operations.
- My area is experiencing excellent growth, both in population and business activity.
- Cautious optimism. Careful to control costs; delay in hiring.
- "Snow Birds" and their companies moving to the South. More business requirements.
- Print advertising increasing as economy grows.
- Rebound from the Houston "depression" provides for growth.

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THE MAGAZINE OF THE PRINTING INDUSTRY

OPTING TO RE-EQUIP

Determined Printers Seek Pathways to Recovery

Quick Print Market • Small Shop Business Planning

A CAHNERS PUBLICATION DECEMBER 1991
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THE MAGAZINE OF THE PRINTING INDUSTRY

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Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken, Lisa Cross

Assistant Editor Bridget Kinsella Arais

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager Peter Johnston (212) 932-3368

Project Editor Debora Clesh Toth

Midwest Editor Bill Esler (312) 226-4641

Contributing Editors Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Michael Ducey

Classified Advertising Manager Kevin D. Thomas (212) 463-6843 Maureen Lewis, Assistant

Direct Marketing Manager Richard Negri (212) 463-6827

Business Manager Jerry Arotsky

Contracts Jeffrey Rothstein

Production Manager Daniel Coakley (212) 463-6545

Promotion Manager Dorian Torregrossa

Research Manager Angela Venturino Darcla

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Bulk Reprints Carol Bien 1-800-323-4958

Supplement Reprints Cathy Dionne 1-800-523-9654

Group Circulation Manager Eric Schmierer (303) 388-4511

Subscriptions/Back Issues 1-800-637-6089

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Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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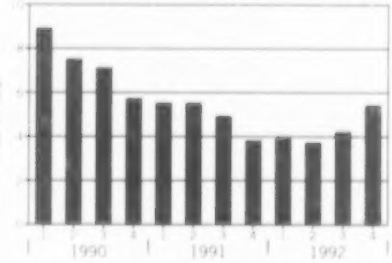
Periodical, Book Sales Remain Strong

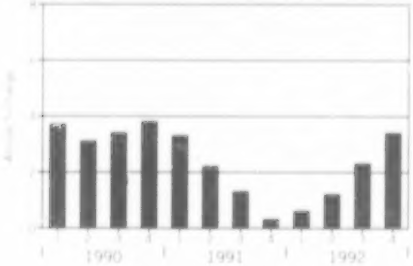


Periodicals and Books Production

Within the printing and publishing industry, the periodical and book sectors remain the fastest-growing, as measured by the industrial production index. In the first eight months of the year, the periodicals and books index rose 4.9% above the same period in 1990. In comparison, output for the whole industry decreased a slim 0.5% in this time period. The periodicals and books area of printing and publishing is boosted mainly by consumer spending. According to the Magazine Publishers Association, consumers are the third largest source of magazine revenues, following advertising and subscriptions.

Despite the low spending levels overall, consumers continue to buy books and magazines; the consumer spending data show significant gains over last year. Continuing at this modest pace, production of periodicals and books will post its slowest rate of growth since 1987 at 3.8% for 1991. Output will pick up more speed late next year and register annual growth of 5.4% in 1992 and 4.2% in 1993.

Job Printing to Post Slowest Growth Since '81



Job Printing Production

The industrial production index for job printing output rose a slight 0.5% in the first eight months of the year, as compared to a year ago. Judging from this poor performance, the job printing sector is headed for its slowest rate of growth since 1981. By the end of the year, expect output to be only 0.3% above the 1990 level. In comparison, job printing output has posted average annual gains of 6.8% over the past five years. Depending heavily on general business conditions and, specifically, on print advertising spending, the commercial printing sector is being hard hit by the current recession. Nonetheless, a recovery is in sight (although it varies greatly from region to region in the U.S.) as the general economy heads into a moderate growth pattern. Cahners Economics is forecasting output growth of 3.4% in 1992 and 5% in 1993.

NDEXGRAPHICARTSINDEX**GRAPHIC ARTS INDEX**GRAPHICARTSIND

Following the trends of the general economy, the printing and publishing industry is suffering, as shown in this month's datatable. With the exception of the severe dropoff in newspaper publishing activity, the industry overall is not doing too badly and heads for a bit of a decline this year. Even more fortunate for the industry is the price situation. Price inflation has calmed down tremendously and printers and publishers can worry less about rising material costs.

PRINTING ACTIVITY INDICATORS

				Annual % Change			
Industrial Production (1)	**08/90**	**07/91**	**08/91**	**1990**	**1991**	**1992**	**1993**
Printing & Publishing	111.9	111.6	111.9	4.1	-0.8	3.6	4.1
Newspapers	98.8	91.8	91.7	1.0	-7.5	1.5	1.9
Periodicals, Books, Cards	123.2	129.9	130.4	5.7	3.8	5.4	4.2
Job Printing	110.6	112.9	112.1	3.8	0.3	3.4	5.0
Shipments (2)							
Printing & Publishing	na	na	na	10.6	1.7	8.0	8.4
Newspapers, Books, Periodicals	na	na	na	4.9	-8.1	7.7	9.8
Other Publishing & Printing	na	na	na	16.5	2.8	[illegible]	7.1
Producer Prices (3)							
Commercial Printing	127.5	129.7	130.1	2.5	2.1	2.7	3.3
Printing Trades Machinery	125.3	127.3	127.5	1.6	1.6	2.2	2.5
Printing Ink	126.4	128.5	129.8	1.9	5.8	4.2	4.5
Paper	129.1	125.8	125.7	-0.7	-0.4	3.9	4.9

(1) Index 1987=100, Federal Reserve Board. (2) [illegible] U.S. Dept. of Commerce. (3) Index 1982=100, U.S. Dept. of Labor.
na = data not available at publication
(f) forecasts by Cahners Economics

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Printers Set New Agenda

As the U.S. economy plods out of the recession, equipment buying keeps printers current.

By Bill Esler
Midwest Editor

As the nation's businesses try to get a bead on the direction of the economy, signals are coming in mixed and contradictory. Despite the handwringing and angst in daily headlines, the economy is recovering, and will continue to do so, probably helped along by a tax cut. The U.S. economy *will* plod out of the recession, if not as soon as some would like, while shedding the dead weight of borrowing excesses from the 1980s.

"We've seen downturns before, and there is always a recovery," says Tom Simunek, president of Meehan-Tooker, East Rutherford, N.J. "The only difference now is that fewer players will remain." The company announced a $20 million press purchase and plan expansion during the Print 91 exposition, despite worrisome headlines. "We don't know when the economy will turn around," Simunek says, "but we want to be ready."

Most printers expect flat sales or tortuously slow growth next year. Many take the "opportunity" presented by the recession to expand or upgrade production capacity, sales forces, and to be acquired or to acquire faltering competitors.

"I am upbeat," says Katherine Gekker, president of Huffman Press. Her Alexandria, Va., shop had been serving top-end designers until the recession forced it to look elsewhere. "We went into this downturn, which began for us in September 1989, in a very strong financial position. We thought we had a nice differentiation for the company in the marketplace, but the economy has eroded that."

Despite a slight erosion from a high of $1 million annually, Gekker added a two-color Heidelberg and a Hamada two-color. "Any time you can afford to put in assets when others can't, you come out ahead," she says.

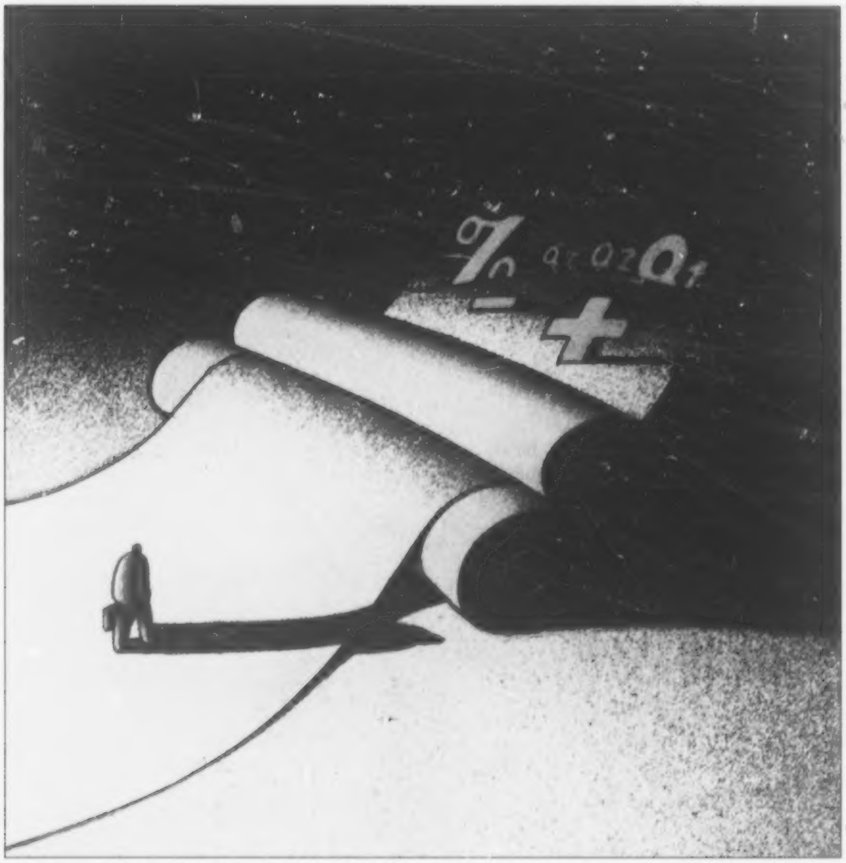
With a buyers' market both for equipment and companies, Gekker and others find it a good time to expand in anticipation of a comeback. Some businesses are adding salespeople and their loyal accounts.

Printers who are regrouping are also restructuring production capacities. Some—rejecting the specialization of the 1980s and playing to the single-source needs of customers who downsized—are adding computer-based color systems, and others are taking binderies in-house.

"There will be fewer buyers at smaller customers, so you'll have printers who are fully integrated," says Skip Sayers, president of Sayers Printing in St. Louis, who recently added Macintosh color systems. "We see ourselves growing about 5% better than the GNP. We're in a niche where we don't have a lot of competition," he says. Also, special in-line finishing allows Sayers to sell on both coasts although, he says, "The East Coast is just moribund."

Printers of varying size are seeing their businesses change. Smaller printers hang onto customers, forging new relationships based on service; "They live on the basis of service, operating right on the doorstep of their customers," is the way Simunek puts it. These small printers serve the growing numbers of very small businesses.

Large printers operate in their



David Tillinghast

Although it seems like a long and winding road leading to better economic times, printers have already implemented profit-making plans.

own world, linked to the shrinking numbers of ever-larger customers in catalogs, retail, manufacturing, and publishing.

Mid-sized printers, who often are undercapitalized and dealing with low margins in a competitive marketplace, face the toughest road. Many are driven to merge or be acquired. As Simunek puts it, "Acquisitions today are just a pleasant veil covering bankruptcy."

And just when printers need money to upgrade or expand, print customers enjoy a buyer's market, a painful sidelight of the recession.

For those who haven't been reading the headlines, the recession "began" in September 1990 and "ended" in June, three quarters of negative or no growth. When GNP expanded 2.4% in the quarter ended in September (2.2% in 1987 dollars), some took it as definitive proof that the recession has ended.

Would that things were so tidy for the rest of the nation. A solid case for wavering confidence in the economy can be built on any number of reports. Leading economic indicators, consumer confidence, new car sales, employment figures (including new claims for unemployment, total unemployment, and total employment), housing starts: differing reports on these factors can be cited variously as evidence that the recession has ended, that it continues, or that it is returning for a "double dip".

The reason it's so hard to make sense of is that two different shifts have been happening simultaneously. First, the U.S. economy is being retooled and reformed. It is making a massive adjustment that will take years to complete, as it moves to a new and more competitive position in world markets. It is also undoing the damage wreaked by the speculative excesses of banks and borrowing binges among businesses and consumers during the '80s.

Second, the recession was not a discrete, three-quarter drop and recovery, as some have stated. Instead, it hit certain regions and industries over the past two years, striking the Northeast earlier than other areas and devastating financial markets and housing construction.

Since the recession did not follow the historical pattern, neither will the recovery, which will take longer than anticipated. Printing Industries of America presents some very uneven projections on the recovery rate in different regions: the West South Central (Ark., La., Okla., Texas) has already begun its recovery (third-quarter 1991); Pacific Northwest (Alaska, Wash., Idaho, Mont., Ore., Wyo.), Pacific Southwest (Calif., Nev., Utah, Colo., Ariz., N.M., Hawaii), and South Atlantic (Del., Fla., Ga., Md., N.C., S.C., Va., Washington D.C., W.Va.) regions will begin recovering in fourth-quarter 1991; East South Central (Ala., Ky., Miss., Tenn.) in first-quarter 1992; West North Central (Iowa, Kan., Minn., Mo., Neb., N.D., S.D.) and East North Central (Ill., Ind., Mich., Ohio, Wis.) in second-quarter 1992; Middle Atlantic (N.J., N.Y., Pa.) in third-quarter 1993; and New England (Conn., Maine, Mass., N.H., R.I., Vt.) won't begin recovery until fourth-quarter *1995*.

Two major components of the economy, manufacturing and the consumer, will fuel economic growth, but they, in turn, are fueled by confidence.

(Continued on p. 38)

Manufacturing has been recovering. Through August, industrial output of factories, mines, and utilities had risen for five straight months, but by September there was evidence of a slowdown. Three-fourths of the improvement in GNP is based on rebuilding of slim inventories by businesses, indicating optimism, while the balance was based on final sales of goods and services, indicating tight purse strings.

To really power up, consumers—who account for two-thirds of economic activity—must get into the act. Without them there can be no upturn in the basics: auto sales, housing starts, durable goods, or retail sales. Cuts in the Federal Reserve Board's interest rates were not passed along immediately by banks, hampering some business investment. And the most recent cuts, down to 4.5%, are unlikely to stimulate consumers, who feel too debt-laden to borrow at any interest rate.

CONSUMERS WILL EVENTUALLY JOIN IN; THEIR CARS ARE AGING, THEY'RE HAVING MORE BABIES.

Consumers will eventually join in; their cars are aging, they're having more babies, and pent-up demand is rising. But the public is hesitant—fearful, even—in the midst of extended unemployment everywhere. Still, at 4.6%, official unemployment levels are well below the 10% in the last recession.

Consumers are spending much of their income paring down personal debt, by more than $1 billion a month in August and September alone. This is sensible and bodes well for the long term but translates into business torpor for the short term. Though the White House predicts ample GNP growth of 3.6% for the next four quarters, most economists figure 2.8% is more likely.

What does this mean to the graphic arts industry? Advertising-based printing, around two-thirds of the commercial business, may grow along the same rate, but perhaps not in the same time frame. Typically, advertising increases lag GNP growth by a few quarters.

Printers around the nation support this delayed time frame thinking; most don't believe the recovery will help printers for some time. Those doing well often attribute growth to increasing market share, a nice way to say they are taking business from competitors.

McArdle Printing, in the Baltimore-Washington area, chose this recession year to add a Harris N-400B four-unit web and completed a move to a new, larger facility. "We've been experiencing growth from our current customers," says the company's Bill Teare. "Growth in an economically-depressed climate is not growth of the economy per se, but simply getting a larger market share."

Teare sees opportunities beyond the company's regional, two-color newsletter and financial printing services. "The economy is pretty stagnant here, a rare situation in Washington. Heretofore, whenever a recession came, every printer in the country flocked to Washington, but that's no longer true." McArdle has 200 employees and annual sales of $19 million.

In late 1990, Peake Printers, Hyattsville, Md., planned to spend $3 million on a Sigmagraph color prepress system and a seven-color press. Despite the lackluster year, Peake went ahead with its plans.

"We did it for a couple of reasons: it was a buyers' market, and we made some future upgrades to be more competitive," says Jay Rupard, president. As far as seeing any major changes in the market, he adds, "I haven't, and I don't see any in the foreseeable future."

Concord Litho, located in New Hampshire, which is sometimes described as being in a depression, didn't shrink from its purchase of a MAN Roland 800 63" six-unit sheetfed. Ground was broken for the $4 million expansion in March, and the press installed in June. It prints greeting cards, posters, packaging, and labels, all still healthy.

"We had a chance to get out of this machine," says Bill Nourse, sales and marketing vice president. "But we talked about it and said no, let's do it. Since being installed, it's been reasonably busy. I'd say we will end up about 9% to 12% ahead of 1990."

Nourse attributes good value as the key to the growth, but recalls the salad days of 1990, when sales rose 23%. The company does feel pressure to provide all services under one roof. "We're more inclined to add stuff to the back of the operation rather than to prep," he says. "Every six weeks the state of the art of prep is changing, and there are three or four others within 30 miles who have it, so why bother?" Concord has 260 employees and sales of $36 million.

Carqueville Printing in suburban Chicago acquired TCR Graphics during 1991, and added two new Mitsubishi sheetfeds, a

28″ six-color, and a 51″ seven-color, extending its reach from large-format sheetfed down to smaller four-color sheetfed, prepress service, and sales power.

"Obviously 1991 has not been a banner year," says Pat Carney, president. "We've only started to feel the effects of the economy in the last couple of months." He thinks Carqueville/TCR Graphics will recover by second-quarter 1992.

We fared a lot better than most printers. The majority have suffered a pretty tough year," Carney says, who sees 1992 as flat. "But there are opportunities for people who have done their homework."

On the smaller side, Insty Prints Plus, Kansas City, Mo., was the first business in its franchise to break $1 million in annual sales, largely by serving the small commercial market through addition of a short-run forms press, a 19×25″ Multigraphics Eagle, and, at Print 91, a two-color Eagle.

"To combat the recession, we found a spot between the high-end of the fast print business and the low-end of the commercial business," says owner Al Soli. "There's good demand for short-run quality work, which the traditional fast printer won't do."

"In the Midwest, the recession hit later. Traditionally, we don't go downhill as fast the rest of the country, but we recover more slowly," Soli says. He predicts 1992 will be much like 1991: "Very competitive. We're not going to wake up one morning and say, 'The economy is just fine now.' It's [recovery] going to be very, very slow."

Most large, publicly-held companies had at best flat sales and earnings. R.R. Donnelley & Sons reports virtually unchanged earnings for the latest period. Still, it is rated one of the top three firms in its class, in terms of research and development budget, according to *Business Week* magazine, and its capital expenditure plans totaled $290 million in 1991.

The Devon Group, which includes Graftek Press and Black Dot Graphics, reports sales lagging in the latest six months. "Considering the weak economy and the poor state of the graphic arts industry," says chairman Marne Obernauer, "our businesses are performing well. Profitability remains at respectable levels at our prepress and magazine printing units, notwithstanding the falloff in publishers' requirements for textbooks, and the well-documented decline in advertising expenditures."

Banta Corporation, Menasha, Wis., says it is cautiously optimistic about 1992. "Certainly, the extent of the year's success is going to hinge on the timing and the extent of the recovery," says spokesman Mark Fleming. "With both the Olympics and a Presidential election in 1992, we expect to reap some benefits." Another plus is a school textbook adoption program that takes place in California and Texas next year.

"And one area where we hope to see growth in 1992 is data manuals for the computer hardware and software industries," says Fleming. Banta acquired computer manual printer Bushman Press of Salt Lake City earlier this year.

Daily Printing, Minneapolis, finished its latest six months with sales up 22%. "We anticipate an increase of 20% to 25% by the end of our first fiscal year, and from that point, a 15%-20% increase for the following year," says J. Robert Chelberg, the newly-appointed chairman. In early 1991, Daily added a six-color Heidelberg Speedmaster with in-line coating. Chelberg says the growth for the firm came from three sources: "New equipment, a new sales force, and being a more aggressive marketer." The $10 million firm employs 68.

In Rochester, N.Y., Mercury Printing countered the local downturn at big businesses by picking a growing segment: two-color work. The firm, headed by Valerie Mannix—who was named New York State Businesswoman of the Year—was recently granted tax abatements and a $1.8 million industrial revenue bond to help with her $2.2 million project.

"Everything went pretty well in 1991," says Mannix. "We opened a few more markets and centralized our printing jobs to two-color, which has done wonders because everyone has been cutting down on four-color work." Her biggest customers: Xerox, government agencies, and computer software firms.

"Big four- and six-color plants tell me things are starting to pick up here. With about 400 printers, Rochester is a full market, but there's enough work for everyone," she says. Her 60-employee firm will add 20 people after

Growth in the '90s

If times are tough now, they won't always be, and what follows is a table, courtesy the PIA and *Printing 2000*, indicating which print markets are likely to grow (i.e., average annual real growth) in the coming decade.

Other Advertising	**8.5%**
Quick Printing	**6.5%**
Direct Mail	**5.5%**
Annual Reports	**4.5%**
Prepress Services	**3.5%**
Catalogs/Directories	**3.5%**
Inserts/Coupons	**3.5%**
Business Communications	**2.5%**
Magazines/Periodicals	**2.5%**
Book Printing	**1.5%**
Labels/Wrappers	**1.5%**

moving to new quarters.

The recovery will prompt a move toward vertical integration, prepress through finishing, all done in-house. "Today's technology will force every printer who wants to stay in the game to get into prepress," Carqueville/TCR's Carney says. He adds that investment in technology, whether prepress or pressroom, will spell the difference between survival. "Over the next five years, fringe printers will have a rough time. Our industry is in for a real dramatic change. Those properly positioned will come out way ahead of the game."

"Most printers are breaking even, or even losing money," says Ken Bortner, vice chairman of Northeast Graphics, North Haven, Conn. The company has seen 60 new accounts so far this year. "Actually we're optimistic, unlike most people out there," says Bortner. "Part of the reason is that we've always been ahead of most printers when it comes to investing in technology."

The company added its second pair of Macintosh-based color prepress units and an Agfa 5000 imagesetter, plus the first Komori 40" press (a seven-color unit) in its region, with automatic makeready and automated plate changers. "We have a capital budget and stick to it," he says. "If you don't put the money in, you're going to lose out."

> "TODAY'S TECHNOLOGY WILL FORCE EVERY PRINTER WHO WANTS TO STAY IN THE GAME TO GET INTO PREPRESS."

Despite operating in one of the bleakest areas of the country, Northeast Graphics is opening a sales office in Washington, D.C., plus sales bases in New York, Philadelphia, Boston, and Rochester. Says Bortner, "Next year the economy is going to level off, or stay at a lower level. It probably won't get any better."

Waiting for recovery in 1993, Bortner says his company will grow by adding salespeople: "Our strategy is to recruit the salespeople who have the accounts, and expose those accounts to the next technology and the talent that we have at Northeast. We've expanded the sales force by 50%." Sales are $60 million, and the company employs 400 in its web and sheetfed plant.

For print industry suppliers and financiers who avidly track capital expenditure as indicative of business recovery among printers, the signs were good this fall at the Print 91 exposition. Typical monthly printing equipment sales in 1991 were running around $196 million (12% below 1990 levels), according to NPES, the Association for Suppliers of Printing and Publishing Technologies.

At Print 91, more than 50,000 printers came on a shopping spree. Heidelberg alone sold $100 million in equipment; Komori placed 25 presses valued at $30 million; MAN Roland sold $50 million in sheetfed and webs; Akiyama sold $15 million in presses. Assuming sales of another $100 million by other exhibitors means overall totals around $300 million.

As printers expand, another cost to be reckoned with is the expense of meeting new, stricter environmental regulations imposed by both the government and by customers. "There's a lot of burden on printers right now," says Hal Ettinger, head of Project Resource Group, a suburban Chicago specialist in plant construction and buildouts.

A $3 million web might entail a $1 million add-on for pollution controls. "Pollution abatement is raising the price tag for expansion," Ettinger notes. Some put off compliance but will have to take the hit eventually, he says.

Berlin Industries, Addison, Ill., estimates its recent plant construction included $6 million in environmental controls—nearly half for an air pollution cleaner—in all, a big chunk of the $40 million project.

There are some bright spots among the bleakness. Since nearly 5% of retail goods are sold via mail order, catalog and direct-mail businesses have potential; the finely targeted direct-mail piece is still popular with advertisers seeking reduced waste from other media.

The most successful industries in the latest quarter—those showing earnings rises against third-quarter 1990—include semiconductors (up 236%); medical, biotechnology, and security brokers (98%); auto parts (96%); casinos (87%), food (61%); and factory equipment, food retailers, heavy construction, and industrial technology, all up 29% to 34%.

Aggressive printers are retooling and taking the opportunity to reposition themselves. They are moving their businesses to serve the areas they view as under-served, or to those areas that are growing, or away from those areas that are shrinking. But printers must understand that the economic changes sweeping through U.S. businesses will continue for the next few years.

Circle No. 107 on Reader Service Card →

PRINT MARKET REPORT

Cards Compete In New Outlets

Card manufacturers are reacting to slower growth by diversifying into new markets.

Faced with higher postal rates and a diminishing number of buyers, greeting card manufacturers are seeking new venues to sell cards and exploring new eye-catching designs to attract buyers.

Since the mid-'80s, card sales have been flat; the traditional card shop must now compete with sales through catalogs, grocery and pharmaceutical chains, and off-price stores, such as flea markets.

Card manufacturers, realizing the need to offer a variety of styles and respond to consumer demand, are cutting run lengths, using more recycled paper and environmentally-sensitive materials, and reducing inventory to cut costs. And niche publishers are marketing cards to assorted causes and groups, such as the National Wildlife Federation or ethnic groups, which take sales from traditional card companies.

The Greeting Card Association, Washington, D.C., says retail card sales in the U.S. totaled about $4.6 billion in 1990 and expects sales to rise to $5 billion in 1991. Described by the association as mature, the card industry will experience only nominal growth of 1% to 3% in the future. Some 85% of the market is controlled by Hallmark Cards, American Greetings, and Gibson, while the rest is divided by more than 1,000 smaller niche card publishers.

By Debora Toth
Project Editor

Card manufacturers are reacting to the slower growth in a number of ways. Privately-held Hallmark Cards, Kansas City, Mo., with sales of $2.7 billion in 1990, is diversifying into cable, television, and other products. It invested about $1 billion this year to purchase Cencom Cable Association, which has about 550,000 cable television subscribers in the St. Louis area. Hallmark also owns nine television stations in New York and Los Angeles that carry Spanish-language programming, and Binney & Smith, the manufacturer of Crayola crayons.

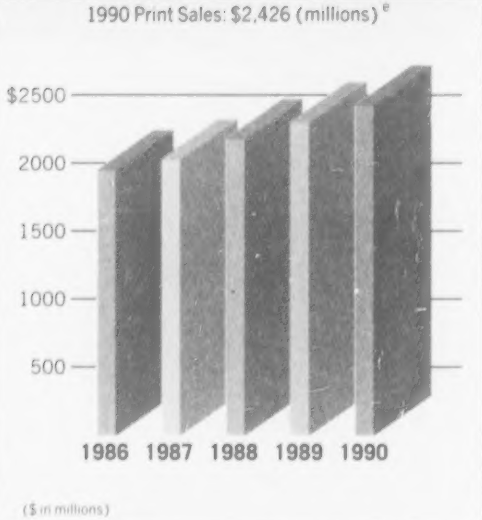
In an interview in *The New York Times*, Irvine Hockaday Jr., Hallmark's president and chief executive, said, "We think the future of cable is attractive. But we also think there is a possibility that it will provide us with cross-term marketing." Hallmark's research indicates that consumers spend less time in shopping malls today, which puts a damper on greeting card sales. By purchasing cable and television stations, the company is looking into selling cards through a home shopping show.

In the meantime, Hallmark sells its cards strictly through its own stores, along with its own gift wrap, stationery, and assorted items. The company jobs out most of the 11 million cards it produces a day, handling the specialty work, such as diecutting, stamping, and embossing, plus marketing, inventory, and distribution.

Commercial Lithographing Company, Kansas City, has been printing Hallmark cards for 40 years. It also produces food labels, envelopes, and food packaging material on four 40" Heidelberg Speedmaster six- and seven-color sheetfed presses, and four 60" sheetfeds.

"The run lengths [for cards] are shorter and cycle time is

Greeting Cards



1990 Print Sales: $2,426 (millions) ^{e}

Major Printers—Greeting Cards

Rank	Company	Sales in millions*
1	Hallmark Cards Inc.	1,090.0
2	American Greetings Corp.	745.0
3	Gibson Greetings Inc.	255.7
4	Deluxe Corporation	130.0
5	CSS Industries Inc.	45.0
6	Paramount Cards Inc.	41.0
7	Pitney Bowes Inc.	21.0
8	Burgoyne Inc.	19.0
9	Williamhouse-Regency Inc.	15.0
10	Masterpiece Studios Inc.	14.5

*Note: Preliminary Ranking   e = estimate   Source: PrintMarkets

Chart by Annabelle Carter

greeting cards. Recycled paper won't be accepted in a Mother's Day card."

But card manufacturers are working on other environmental issues. Bill Pfeiffer at Commercial Lithographing admits that the Environmental Protection Agency, Missouri Department of Natural Resources, and Mid America Regional Council are looking hard at printers in the state. "The printing and dry cleaning industries use volatile chemicals," says Pfeiffer. "We are using organic chemicals and a few soy-based inks. We realize the pressure from our clients."

To tint its envelopes, Gibson uses vat dyes that are mostly organic. "We also use soy-based inks and are within striking distance of a zero-based chemical," says Slouka. Gibson's Cleo Division in Memphis has been recognized for its progress in using water-based inks on its high-speed six-color presses.

American Greetings is using more recycled paper and less fountain solution. "We're looking into waterless plates. It's very appealing to us," says Van Arsdale. "Right now, it's just an investigation. We would expect to get higher quality and faster set-up time. We'd like to use Toray plates on some selected higher-quality products."

To attract buyers to new designs, card manufacturers such as Hallmark, American Greetings, NuArt, and Current utilize a new process known as Prismatic Imaging. Invented by Robert Mancuso of RJM Graphics five years ago, it involves silver stamping the card, then printing atop the silver stamping.

House of Gold, Pennsauken, N.J., holds the exclusive license for marketing the process to the greeting card industry. After it silver-stamps the cards, House of Gold sends them to three licensed printers: Lebanon Valley Offset (LVO), Annville, Pa.; Triune Color Corporation, Pennsauken, N.J.; and Foremost Printers, Stoughton, Mass.

"We introduced the process to the greeting card industry two years ago," says Len Solomon, House of Gold's president, "The first full year we stamped 1.5 million cards. In 1991, we will stamp 40 million cards. We've catered to the greeting card industry for 11 years."

Jim Schneiter, LVO vice president and director of research/quality control, agrees: "What makes the effect different is that the card is stamped, then printed, so when a viewer holds a card at different angles, there is a color change, like a hologram or 3D. It's not a simple turnkey process. The stamp has to be in register so that we can print over it. It's a very fine register process that you cannot do casually."

LVO entered the traditional greeting card industry more than 10 years ago, specializing in museum and art reproduction cards. In early 1991 it started to print the Prismatic Imaging process. "We saw it as an opportunity to round out our market," says Schneiter. "There's a lot of opportunity with the niche players. They have to differentiate themselves from the Big Three."

All card makers are concerned about postal hikes, which affect the volume of cards sent during the holiday period as well as cards sent throughout the year. The Postal Service recently rejected an increase in the 29¢ first-class rate; a rise is now likely in 1994.

Another concern: post office use of optical scanners for zip codes. "The equipment can't pick up certain colors, such as the Christmas colors of dark green and dark red," says Van Arsdale. "I suspect the Postal Service won't change its equipment, so we'll have to look at our envelope colors. Perhaps we'll use white envelopes printed with a holiday design, or use pastels."

For card manufacturers, the ongoing challenge of forecasting consumer tastes and buying habits—which they have perfected via in-store testing, focus groups, and consumer panels—today also extends to wide-ranging appeals for the environment, ethnic pride, and other causes.

But no matter the trends, print in its many variations will continue to play a key role at that special moment when a shopper selects just the right card. ▤

graphic arts monthly

Center Stage, Population Fringe

The West North Central region is dead center, the vast geographical heart of the United States. It is central in other ways, too, and it seems appropriate that we conclude this long survey with the Great Plains. Nothing demonstrates the symbolic nature of this part of the country like a presidential campaign. In the coming months you will see droves of presidential candidates going there to be photographed standing in cornfields and pigpens, demonstrating their solidarity with the farmer.

Meanwhile, we have before us not the mythical but the actual Great Plains, specifically the states of Iowa, Kansas, Minnesota, Missouri, Nebraska, and North and South Dakota. This great spread of land (it is about two and a half times the size of France) is mostly rural, with its major cities—Minneapolis/St. Paul, Kansas City, St. Louis—spread along the eastern edge of the region. The printing industry here, as it does in most places, stays pretty close to the population. Minnesota and Missouri between them account for more than 60% of the printing activity in the region, most of it clustered in the cities. Then as you move north and west it trails off gradually until you get to the Dakotas, where it plummets. South and North Dakota, not incidentally, rank respectively 45th and 46th in population among the states.

Population and its changes raise questions as to the long-term future of the West North Central region. Census Bureau figures show a slow but steady migration out of the area, a pattern reflected in the statistics for educational attainment. Most of these states rank above the national average in incidence of high-school graduates and below it in college graduates, which almost certainly means that many of the region's young people are leaving and not coming back.

In terms of the printing industry, the region seems to be doing fairly well. On the whole, the recent (or current, depending on who you believe) recession affected the Midwest less severely than it did the East Coast or southern California; profitability and capacity utilization figures for the West North Central are slightly above national averages. For most of the region's printers, 1990 was slightly better than 1989, and optimism, though not feverish, exists.

Inside this detachable fold-out form we present a general profile of the graphic arts industry in the West North Central region. The most revealing portion, as noted above, presents survey results among commercial printers. It shows sales changes from 1989 to 1990, the extent of those changes, profitability and capacity comparisons, and a business perception index.

Reprints of this installment of Print Market Trends may be ordered from Carol Bien, Cahners Publishing, Reprint Department, 1350 E. Touhy Ave., Des Plaines, Ill. 60018.

NORTH DAKOTA
MINNESOTA
SOUTH DAKOTA
IOWA
NEBRASKA
KANSAS
MISSOURI

Jean Wisenbaugh

By Peter Johnston
Special Projects Manager

Regional Overview

Commercial printing contributes more than $7 billion annually to the economy of the West North Central region, making it an important source of employment opportunity, capital generation, and tax revenue in the seven-state area. Of the 2,565 printing sites (re PIA: commercial printers), 63% are in two states, Missouri and Minnesota. Iowa and Kansas are fairly close to being the same size, printwise, followed by Nebraska and the Dakotas, proving the rule that print concentration generally follows population. The figure given for printing sites in Nebraska, incidentally, is a misprint for which we apologize; the actual total is around 200.

COMMERCIAL PRINTING

Value of Shipments

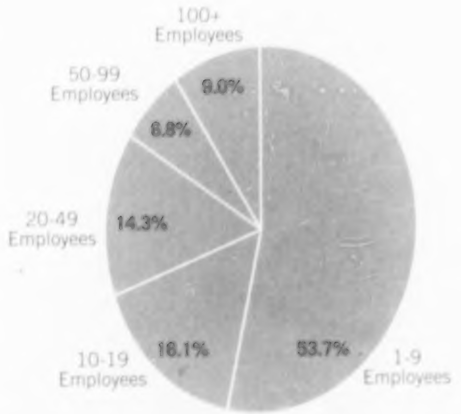
State	Sales, 1990 ($ million)	% of Region	Sales, 1989 ($ million)	% change (1989-1990)
Minnesota	$2,458	35.0%	$2,291	7.3%
Missouri	1,936	27.6%	1,819	6.4%
Kansas	1,055	15.0%	985	7.1%
Iowa	973	13.9%	908	7.2%
Nebraska	433	6.2%	406	6.7%
South Dakota	89	1.3%	84	5.9%
North Dakota	73	1.0%	68	7.3%
TOTAL	**$7,017**	**100%**	**$6,561**	**6.9%**

Source: PIA Economics Department

Printing Sites

State	Sites
Missouri	906
Minnesota	754
Iowa	405
Kansas	357
South Dakota	65
North Dakota	57
Nebraska	21
TOTAL	**2,565**

All Graphic Arts Plants, by Employee Count



Source: GAM 1990 Plant Equipment Market Profile

Charts and graphs by Lisa Hilgers

All Graphic Arts Plants, by Function

Function	# of Plants
Commercial	2,052
Newspaper (w/Commercial)	284
Newspaper (w/o Commercial)	209
Book & Pub	192
Business Forms	71
Converters	121
Noncommercial	705
Trade	286
Quick Printers	228

Source: GAM 1990 Plant Equipment Market Profile

DEMOGRAPHICS

Population

State	Population	Rank
Missouri	5,066,000	15
Minnesota	4,214,000	21
Iowa	2,851,000	29
Kansas	2,460,000	32
Nebraska	1,598,000	36
South Dakota	708,000	45
North Dakota	679,000	46
TOTAL	**17,576,000**	

Population Changes

State	Change (1980-86)	Net Migration
North Dakota	4.1%	-15,000
Kansas	4.1%	-18,000
Minnesota	3.4%	-72,000
Missouri	3.0%	-18,000
South Dakota	2.5%	-20,000
Nebraska	1.8%	-45,000
Iowa	-2.2%	-166,000

Educational Attainment

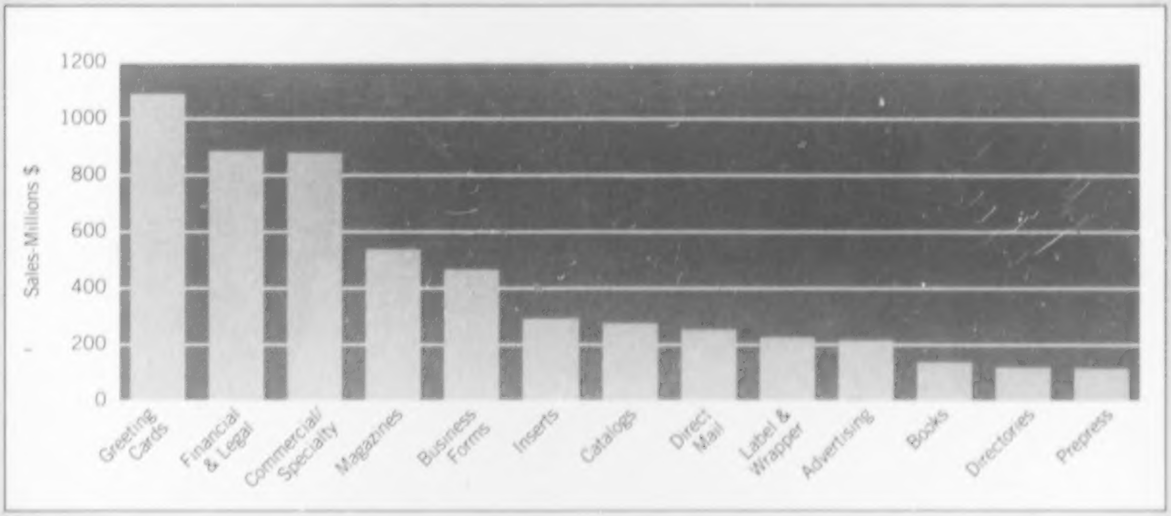
State	High School Graduates	College Graduates
U.S. Average	66.5%	16.2%
Nebraska	73.4%	15.5%
Kansas	73.3%	17.0%
Minnesota	73.1%	17.4%
Iowa	71.5%	13.9%
South Dakota	67.9%	14.0%
North Dakota	66.4%	14.8%
Missouri	63.5%	13.9%

Source: U.S. Dept. of Commerce; Bureau of the Census

Market Profile

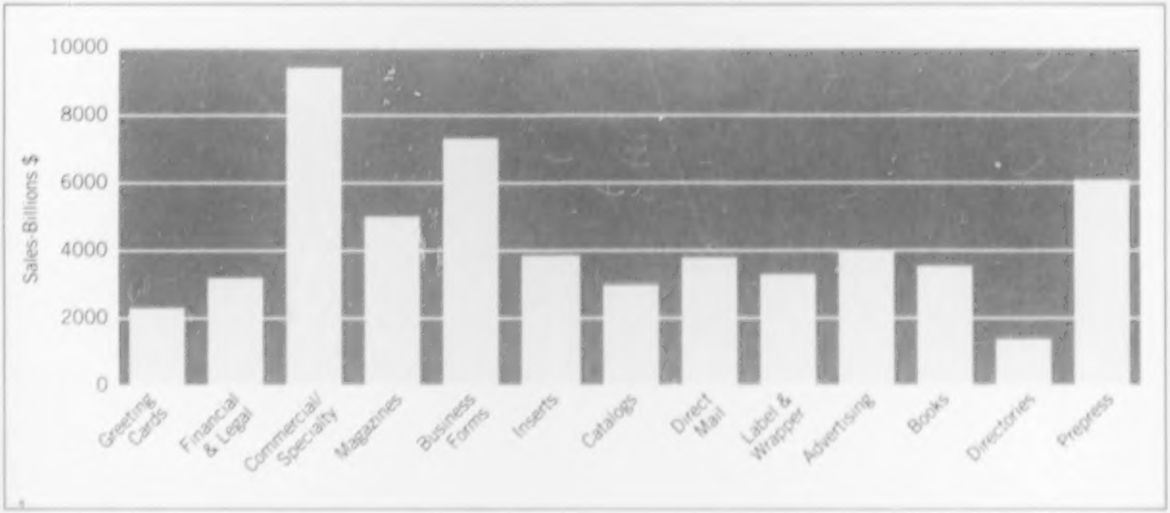
Ranking of Product Segments . . .

This ranking is taken from a database of larger plants (20 or more employees) in the region, with a preponderance of very large sites. The presence of greeting cards at the top is entirely due to one company, Hallmark, which is in Kansas City. Another large firm, Deluxe Corporation, formerly known as Deluxe Check Printers, similarly distorts the picture for financial and legal printing. Prepress, ranked third nationally, is dead last in the region.



. . . Compared to National Totals

These bar charts are presented in similar order to simplify comparison between segment concentration in the West North Central region and the U.S. as a whole. Note that though they are ordered somewhat differently, the largest segments (except prepress) track each other fairly closely. There are, however, some other disparities; for example, advertising is relatively unimportant in the seven-state region, as is book printing.



Leading Printers in the Region

IOWA

Bawden Printing, Inc., Eldridge
Wm. C. Brown Company, Dubuque
The Clarinda Company, Clarinda
Control-O-Fax, Waterloo
Downey Printing Inc., Des Moines
Economy Data Products, Des Moines
GBP Industries (Sullivan), Marengo
Heartland Press Inc. (Colwell), Spencer
Meredith/Burda Corporation, Des Moines
The Fisher Group, Cedar Rapids
The Vernon Company, Newton
Thomas D. Murphy (Shaw-Barton), Red Oak
Wagners Printers, Inc., Davenport

KANSAS

Ace Forms, Pittsburg
Adams Business Forms, Topeka
Data Documents Systems, Inc., Industrial Airport
Dimension Graphics, Inc., Lenexa
Forms Manufacturers, Girard
Graphic Promotions, Topeka
Graphic Technology, Inc., Olathe
IMI Business Forms, Parsons
Jostens Printing & Publishing, Topeka
McCall Pattern Co., Manhattan
McCormick-Armstrong Company, Wichita
Neff Printing, Inc., Shawnee Mission
Ringier America, Inc., Olathe
Service Business Forms, Inc., Wichita
Treasure Chest Advertising, Lenexa
Valassis Inserts, Wichita
Vallis/Wngroff Business Forms, Cherryvale
Vile Goller/Fine Arts Printing, Kansas City
Ward/Kraft, Inc., Fort Scott

MINNESOTA

Advertising Unlimited, Inc., Sleepy Eye
American Spirit Graphics Corp., Minneapolis
Anderberg-Lund Printing, Minneapolis
Brown & Bigelow, Inc., St. Paul
Brown Printing Company, Waseca
Colorhouse, Inc., Minneapolis
Colwell Industries Inc., Minneapolis
DataCard Corporation, Minneapolis
Deluxe Corporation, St. Paul
Gaines & Hanson Printing, New Hope
Holden Business Forms, Inc., Minneapolis
Instant Web, Incorporated, Chanhassen
Japs-Olson Company, Minneapolis
Litho Specialties, St. Paul
Quebecor Printing, Fridley
Quebecor Printing, St. Cloud
Quebecor Printing, St. Paul
McGill/Jensen Inc., St. Paul
Merrill Corp., St. Paul
Meyers Printing Company, Minneapolis
Moore Business Forms, Inc., St. Louis Park
Muscle Bound Bindery, Inc., Minneapolis
National Computer Systems, Eden Prairie
Northprint Co., Inc., Grand Rapids
Northstar Computer Forms, Minneapolis
Photo Mechanical Services, Inc., Minneapolis
Process Displays, Minneapolis
Schmidt Printing, NW Rochester
Scoville Press, Inc., Plymouth
Shakopee Valley Printing, Shakopee
Sly Litho, Inc., St. Paul
Spectrum, Inc., Minneapolis
TapeMark Company, West St. Paul
The Bureau of Engraving, Minneapolis
The Hart Press, Inc., Long Prairie
The John Roberts Co., Minneapolis
The Press, Inc. (Banta), Chanhassen
The Printer, Inc. (Banta), Maple Grove
United Mailing, Inc., Chanhassen
Victory Envelope, Inc., Chanhassen
Viking Press, Inc. (Banta), Eden Prairie
West Publishing Company, St. Paul

MISSOURI

Barton Nelson, Inc., Kansas City
Burd & Fletcher, Inc., Kansas City
Buxton & Skinner Ptg. (Pubco), St. Louis
CB Forms, Ltd., East Prairie
Clark Printing Company, Inc., North Kansas City
Color Associates, Inc., St. Louis
Color-Art Printing, Inc., St. Louis
Combined Communication Svcs., Columbia
Comfort Printing & Stationery, St. Louis
Corley Printing Company, Earth City
Eagle Lithographing Company, Kansas City
Fleming Printing Co., Fenton
Fordyce Marketing Services, Hazelwood
Goodwin Brothers Printing Co., St. Louis
Gospel Publishing House, Springfield
Hallmark Cards, Inc., Kansas City
Harmony Printing, Liberty
Henry Wurst, Inc., North Kansas City
Jefferson Smurfit Corporation, St. Louis
John Stark Printing Company, St. Louis
Keeler/Morris Printing, Hazelwood
Lewin Bookbinding, Hazelwood
Lithocraft Studios, Hazelwood
McGrew Color Graphics, Kansas City
Midland Lithographing Company, North Kansas City
Midland/Eagle Lithographing, North Kansas City
Missouri Encom, Inc., St. Louis
MWM Dexter, Inc., Aurora
Nazarene Publishing House, Kansas City
Nies/Kaiser Printing Companies, St. Louis
Sayers Printing Company, St. Louis
St. Louis Lithographing, Afton
The Flesh Company, St. Louis
Townsend Communications Inc., Kansas City
Universal Printing Company, St. Louis
Von Hoffman Press, St. Louis
Walsworth Publishing Company, Marceline
Wilkes Direct Mail, St. Louis
Witt Printing, El Dorado Springs

NEBRASKA

Data Documents, Inc., Omaha
Epsen Hillmer Graphics Co., Omaha
Foote & Davies—Lincoln, Lincoln
Interstate Printing Company, Omaha
Omaha Printing Company, Omaha
Rapid Printing & Mailing, Omaha

SOUTH DAKOTA

Modern Press, Sioux Falls

Sources: Graphic Arts Monthly, Trade & Technology Press

How Printers Are Doing

Based on a survey of firms in the region, conducted by Cahners Publishing

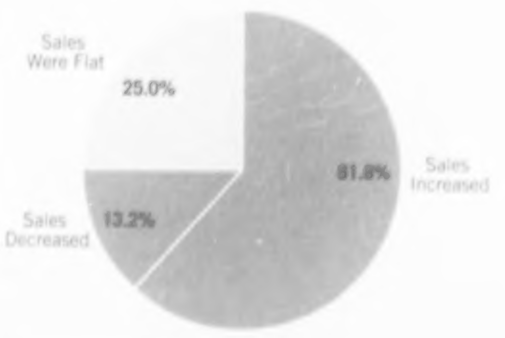
Profile of Respondents

Commercial printers in the West North Central region responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. The following information is as reported by survey respondents; 1990 gross sales were estimated.

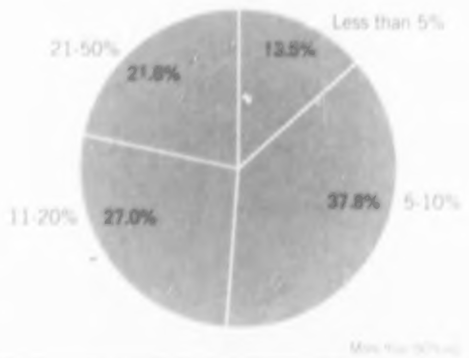
Gross Sales in 1990	
Less than $500,000	4.4%
$500,000-749,999	11.8%
$750,000-999,999	13.2%
$1 million-2,499,999	25.0%
$2,500,000-4,999,999	17.6%
$5,000,000-9,999,999	19.1%
$10 million or more	8.8%

# of Employees	
1-4	1.5%
5-9	12.1%
10-19	21.2%
20-49	34.8%
50-99	27.3%
100 +	3.0%

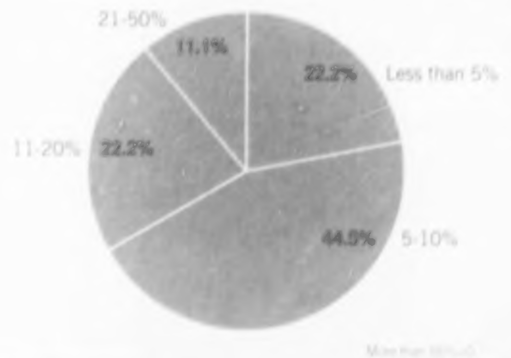
How Sales Changed, 1989 to 1990



If Sales Increased, How Large Was Increase?

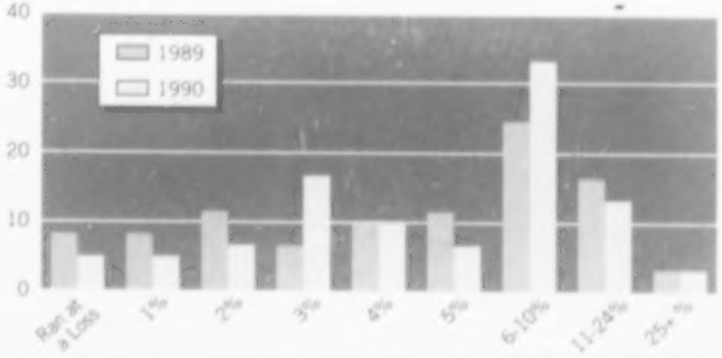


If Sales Decreased, How Large Was Decrease?

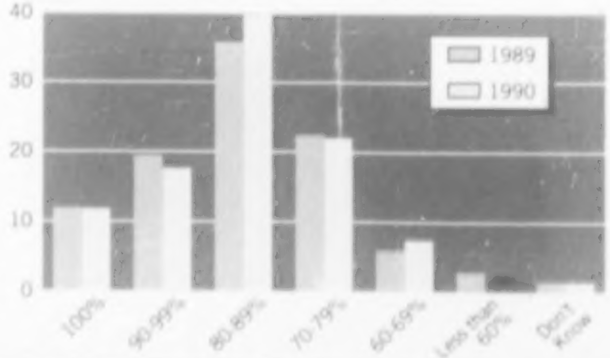


PROFITABILITY & CAPACITY

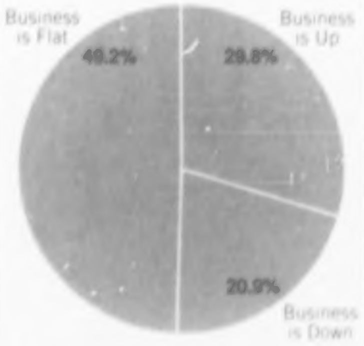
Profit as a percentage of gross sales



Operating percentage of plant capacity



Perception Index



Comments by Printers

- This is a competitive market, but not yet saturated with qualified, consistent vendors.
- Agriculture is doing better, so Midwest economy is recovering from the '80s recession.
- Growth will continue to be more and more concentrated. Planned innovation and expansion is required for growth.
- Dollar sales are the same, but inflation in costs and prices results in less products shipped.
- Competition has become fierce and has forced prices down.

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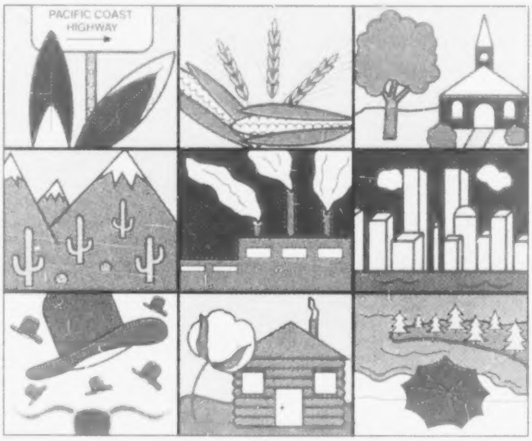
Quick and Profitable

This special gatefold represents a first for GRAPHIC ARTS MONTHLY: the first time we've presented a substantial national and regional profile of the quick printing industry.

This continuously growing segment of the industry is under constant change and redefinement; that is to say, when even the industry's own National Association of Quick Printers (NAQP) keeps reviewing (and altering, when necessary) its definition of "quick printing", you can be sure the industry is one where technology and people adapt quickly (no pun intended) to changing customer needs.



Lisa Hilgers

Just for the record, the new definition of quick printing, courtesy the NAQP, reads as follows: "An existing printing business providing printing and related services on a quick-turnaround basis, excluding in-plant operations, brokerage houses, or companies not identified as printing business, who provide occasional reproduction services to the general public."

What you'll find on the next four pages is a gathering of some of the "top" (in terms of sales figures) quick printers, presented by region.

By Michael Karol
Managing Editor

Using GAM's own subscription list as a starting point, and moving on to a number of other well-placed sources (e.g., the NAQP, the Crouser Report on Sales, the 1991 U.S. Industrial Outlook), we decided against getting too specific with sales numbers.

There are enough reports available to glean average independent single-shop and franchise quick print sales. The Crouser Report lists them as $640,578 (independents) and $562,644 (franchised shops) for 1990; the NAQP's own study, including nonmembers, pegs the numbers at $421,047 (multiple shop operations, meaning an average of 2.7 stores), and $422,717 (single-shop operations) for 1989.

From our own research, we've learned that, of the bigger shops, very few enter the rarefied atmosphere of $10 million or more a year in sales; a big handful score at $3 million to $10 million in sales; and the majority of larger quick printers hit somewhere between $1 million and $3 million in sales, with anywhere from 10 to 50 employees, on average.

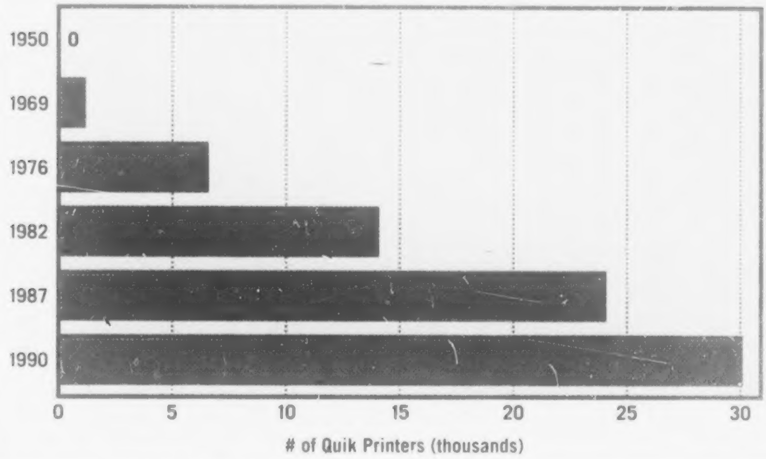
We've also included a separate analysis of franchise sales, and a number of charts and statistics on such subjects as use of color, color as a percent of sales, sales growth by region and per employee, and the growth of the industry, that help round out the overall picture. While we don't claim to have included everyone, we do believe it is an honest attempt to define a somewhat mercurial industry.

Special thanks to Assistant Editor Bridget Kinsella Arajs for her assistance in compiling the franchise information in this gatefold; others who deserve a nod include Editor Roger Ynostroza, Art Director Karen Lehrer, Nan Hallock and Jeff Hayzlett of the NAQP, and Tom Crouser & Associates.

For additional reprints of this double-gatefold form, send $5.00 to Cathy Dionne, Reprint Services, Cahners Publishing Company, 1350 E. Touhy Ave., Des Plaines, Ill., 60018.

Graphically Speaking

The Growth of the Quick Printing Industry



The quick printing industry can trace its beginnings back to the development of the Itek daylight camera in the mid-1960s. Prior to this milestone, there were fewer than 1,000 such shops in the U.S. One of the few industries that has shown steady growth since its inception—now with desktop printing and improvement in color copying technologies—the quick printing industry claims more than 30,000 independent and franchise locations, and total estimated yearly sales of $8 billion.

Source: NAQP

Illustrations, charts and graphs by Lisa Hilgers

Sales Growth of Small Press Printers

The Crouser Report is published annually by Crouser & Associates, management consultants based in Charleston, W.Va. Taking the sales reports from 200-odd small-press printers, it analyzes sales growth with respect to a number of different factors, including region and number of employees (see charts, below).

The 1990 Report notes the fastest sales growth that year was found in a typical unit with 1989 sales between $500,001 and $750,000. The owner is out selling something to someone 25% or more of the time; copying sales probably account for between 5% and 10% of sales; and it's located in the midwestern suburbs.

Sales Growth by Region

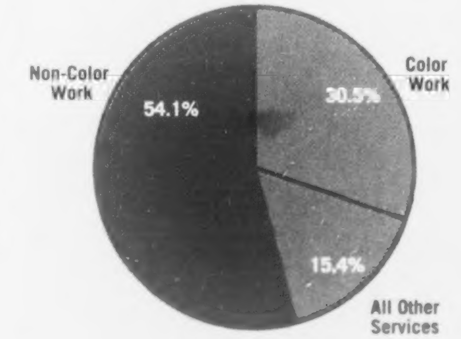
Region	1988 Sales Growth	1989 Sales Growth	1990 Sales Growth
Northeast	12.8%	9.6%	2.0%
South	14.4%	8.8%	4.7%
Midwest	14.2%	9.6%	7.1%
West	13.9%	14.0%	6.8%
National	13.9%	10.3%	5.4%

Sales Growth by Number of Employees

# of Employees	1988 Sales Growth	1989 Sales Growth	1990 Sales Growth
1.0– 5.0	12.9%	5.3%	1.2%
5.1–10.0	13.7%	9.8%	6.4%
10.1–15.0	17.3%	12.1%	8.9%
15.1–20.0	8.2%	6.2%	8.0%
20.0–Up	17.0%	16.6%	2.0%

Source: The Crouser Report on Sales Among Small Press Printers, 1990

% Breakdown of 1990 Sales Dollars



% Breakdown of 1990 Color Sales

Offset Printing	[illegible]90 %	Estimated 1993 %	Net Change in % Points
11" × 17" OR LESS			
Black Ink Only	29.0	22.4	−6.6
One-Color Printing	12.9	13.7	+0.8
Two-Color Printing	10.5	13.0	+2.5
Three or More Spot-Color Printing	1.8	3.0	+1.2
Four-Color Process	0.6	2.1	+1.5
SUBTOTAL	**54.8**	**54.2**	**−0.6**
LARGER THAN 11" × 17"			
Black Ink Only	1.0	1.1	+0.1
Colored Ink Printing	1.3	1.7	+0.4

Source: NAQP

The Top Quick Printers in the U.S., By Region

Pacific

$3-10 million in Sales
Copy House, Sacramento, Calif.
Reprographic Systems, Sunnyvale, Calif.
Sudden Printing, Seattle, Wash.
Vanier Graphics, Santee, Calif.
Walker Reprographics, San Francisco, Calif.

$1-3 million in Sales
Action Copy Center, Portland, Ore.
Bear State Printing, San Fernando, Calif.
PIP Printing, Burbank, Calif.
PIP Printing, Anchorage, Alaska
Shaw Copy Center, Fresno, Calif.

PACIFIC COAST
HIGHWAY

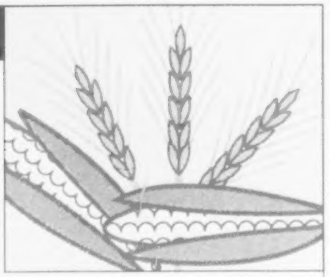
Key to Region: Alaska, California, Hawaii, Oregon, Washington

West North Central

$10-20 million in Sales
Insty-Prints, Minneapolis, Minn.
Quik Print, Inc., Wichita, Kan.

$3-10 million in Sales
Buzz Print, Inc., Shawnee Mission Lak[illegible] Kan.
Liberty Printing, Liberty, Mo.
Omaha Printing Service, Omaha, Neb.
PIP Printing, St. Louis
Schmidt Printing, Inc., Rochester, Minn.

$1-3 million in Sales
Compu Print, Sioux Falls, S.D.
Pro Instant Print, Minneapolis, Minn.
Pro Print, Inc., Lawrence, Kan.

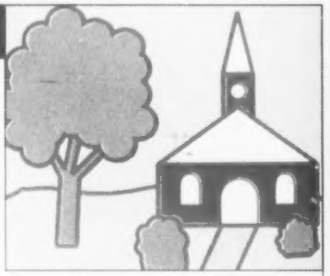


Key to Region: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

New England

$3-10 million in Sales
Allied Color Acusystems, Guilford, Conn.
Copytech Printing, Canton, Mass.
Mail House, Inc., Avon, Mass.

$1-3 million in Sales
Goodcopy Printing Center, New Haven, Conn.
Instant Printing Place, Norwood, Mass.
Precision Printing, Norwalk, Conn.
Sir Speedy, Lynn, Mass.
Sir Speedy, Boston, Mass.
Sir Speedy, Wellesley, Mass.
XPress Copy Service, Portland, Maine

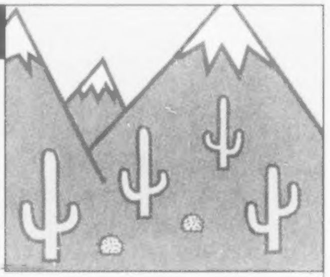


Key to Region: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Mountain

$3-10 million in Sales
AlphaGraphics, Tucson, Ariz.
Kwik Kopy, Phoenix, Ariz.
PDQ Printing, Las Vegas, Nev.

$1-3 million in Sales
AlphaGraphics, Albuquerque, N.M.
AlphaGraphics, Phoenix, Ariz.
Colt Reproduction Center, Boulder, Colo.
Insta Copy Printing, Las Cruces, N.M.
Repro-Graphics, Phoenix, Ariz.
Sir Speedy, Scottsdale, Ariz.
Stop & Go Printing Company, Denver, Colo.



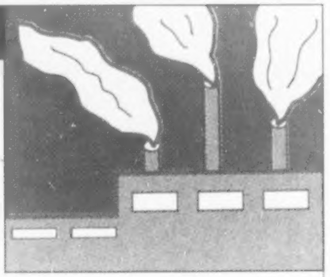
Key to Region: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming

East North Central

$10-20 million in Sales
Original Copy Centers, Cleveland, Ohio

$3-10 million in Sales
Econo-Print, Madison, Wis.
Embossing Printers, Battle Creek, Mich.
PIP Printing, Indianapolis
Southern Indiana Graphics, Aurora, Ind.
Summit Reprographic Service, Akron, Ohio

$1-3 million in Sales
American Speedy Printing, Ann Arbor, Mich.
Creative Graphic Service, Addison, Ill.
Heritage Instant Print, Milwaukee, Wis.
Xpress Print, Canton, Ohio



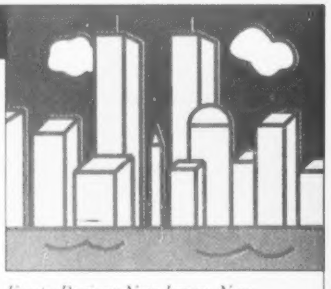
Key to Region: Illinois, Indiana, Michigan, Ohio, Wisconsin

Mid-Atlantic

$10-20 million in Sales
Pro Print, New York, N.Y.

Printer's Places, Philadelphia, Pa.
Triangle Reprocenters, Princeton, N.J.

$1-3 million in Sales
Colonial Printing, New Hyde Park, N.Y.
Documentary Reproduction Service, New York, N.Y.
In & Out Printing, Niagara Falls, N.Y.
PIP Printing, Pennsauken, N.J.
Print Central, Buffalo, N.Y.
Sir Speedy, Lancaster, Pa.
Sir Speedy, Wyckoff, N.J.

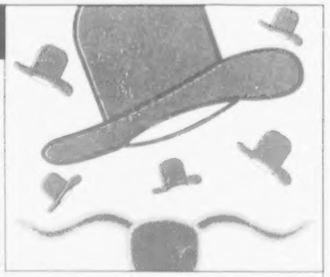


Key to Region: New Jersey, New York, Pennsylvania

West South Central

$3-10 million in Sales
Docucopy Management Services, Houston, Tex.
Ginny's Printing & Copying Corporation, Austin, Tex.

$1-3 million in Sales
AlphaGraphics, Houston, Tex.
Best Reprographics, Dallas, Tex.
Easy Print, Inc., Amarillo, Tex.
Thomas Reprographics, Richardson, Tex.
Uniform Printing, Jacksonville, Tex.

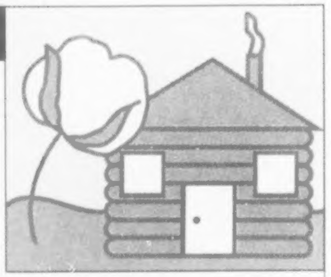


Key to Region: Arkansas, Louisiana, Oklahoma, Texas

East South Central

$3-10 million in Sales
Design Printing Company, Memphis, Tenn.
Lasergraphics Copy Shop, Louisville, Ky.
Vintage Forms, Inc., Louisville, Ky.

$1-3 million in Sales
Birmingham Blue Print, Birmingham, Ala.
Quik Print Southeast, Chattanooga, Tenn.



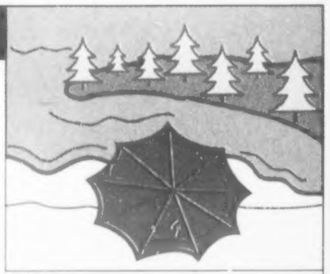
Key to Region: Alabama, Kentucky, Mississippi, Tennessee

South Atlantic

$10-20 million in Sales
Frank Gumpert Printing Company, Kensington, Md.

$3-10 million in Sales
Balmar Printing & Graphics, Washington, D.C.
Copy General Corporation, Washington, D.C.
Curtis 1000 Speedi-Print, Atlanta, Ga.
Printing Services Company, Richmond, Va.
Rockville Instant Printing, Rockville, Md.

$1-3 million in Sales
Copy Cat Printing, Baltimore, Md.
Duvall Printing, Baltimore, Md.
Franklin's Printing Office Supply, Atlanta, Ga.
Harbor Printing, Baltimore, Md.



Key to Region: Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington D.C., West Virginia

Top Franchises Record Banner Year

Rank, Name, (Parent Company), Location	Sales Most Recent Fiscal Year (000)	Sales Previous Fiscal Year (000)	Change (%)	Number of Locations	CEO	Years in Business
1. Sir Speedy/Copies Now, Laguna Hills, CA	336,000	306,000	+10	875	Don F. Lowe	23
2. Kwik-Kopy, Cypress, TX	335,986	306,732	+10	1,000	F.C. "Bud" Hadfield	24
3. American Speedy, Bloomfield Hills, MI	141,000	119,000	+18	700	Vernon G. Buchanan	14
4. Alphagraphics, Tucson, AZ	128,000	120,000	+ 6	325	Mike Witte	21
5. Insty-Prints, Minneapolis, MN	90,000	75,000	+20	325	James Kaufenberg	24
6. Quik Print, Wichita, KS	34,848*	N/A	N/A	132	Wayne Jenkins	28
7. Printmasters, Torrance, CA	24,925	22,904	+ 9	98	Thomas P. Vitacco	15
8. PIP Printing, Agoura Hills, CA	23,000	26,000	−11	1,087	Betsy Burton	23
9. Minuteman Press, Farmingdale, NY	20,300	20,004	+ 2	977	Roy Titus	17
10. The Ink Well of America, Columbus, OH	14,000	11,000	+27	68	George Domsic, Jr.	19
11. LazerQuick, Wilsonville, OR	11,500	10,500	+10	38 **	Carl Swett	23
12. Transamerica Printing, Morrow, GA	11,000*	N/A	N/A	26	Patrick Koehler	5
13. Signal Graphics, Denver, CO	5,593	3,700	+51	29	Steve Morris	17
14. Printhouse Express, Leesburg, VA	4,240	3,019	+40	17	Tom S. Galloway	7
15. Triangle Repro Centers, Princeton, NJ	4,200	4,000	+ 5	14 **	Joseph P. Teti	23
16. Franklin's Systems, Atlanta, GA	2,321	2,179	+ 7	3	Hal Collins	15

*Estimated, from average store revenue

**Includes company-owned locations

Franchise Loyalty Key to Success

With one exception, and in the face of a weak economy, the top quick printing franchises show substantial sales revenue growth in their most recent fiscal years (with a median increase of 15%). Many of these privately-held businesses attribute the increase to the health of their satellites. While each franchise is unique, the relationship between corporation and shop owner is similar throughout the industry.

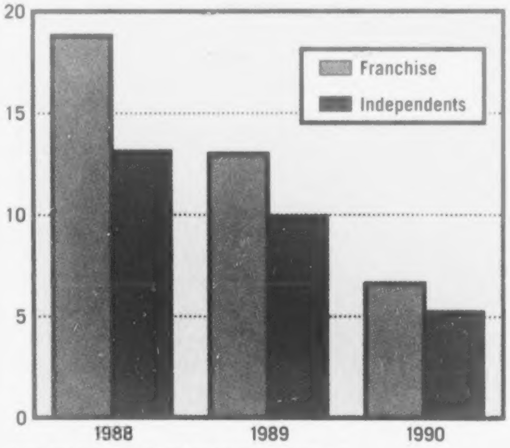
Typically, the franchisor provides the franchisee with start-up costs, training materials, seminars, national advertising, marketing assistance, and information on new products, in exchange for a fee. The franchisor continues to provide these services for an annual royalty fee throughout the relationship. Specific fee structures vary from franchise corporation to corporation; most franchisors require on-average 4% of gross sales the first year, and 6% each year thereafter. Historically, the relationship has proved profitable for both parties. In some cases, it's the only way a franchisee could own his/her business.

Note that one of the biggest names in quick printing is absent from the above list. Kinko's, according to Corporation Communications Director Judy Bartline, is not a franchise operation. The instant printing giant is a privately-held company founded in 1970 by Paul Orfalea. Today there are 584 Kinko's chain stores, all at least partially owned by the corporation. In fact, instead of franchising, the company enters partnerships with its qualified employees. Kinko's declined to disclose its sales revenue figures for this report.

Sales Growth: Franchises Vs. Independents

Independently-owned quick printers show slower sales growth than their franchised counterparts, but the gap is narrowing between the two groups, according to the 1990 Crouser Report. Overall, sales growth lagged in shops with very few employees (1-5), or the most employees (20-plus).

Three years ago, franchised shops realized nearly a 6% increase in sales growth over the independents; in 1990 the difference was just over 1%. The graph below shows, along with the narrowing gap between groups, a steady decline in sales growth for both segments of the industry over the three-year period.



Source: The Crouser Report on Sales Among Small-Press Printers, 1990

PAPER/Michael Ducey

Coated Paper Thrives in Europe

Coated Paper 1990 (000 tons)

	UK	GERMANY	USA
Production	481	2,270	6,824
Exports	296	1,517	199
Imports	1,105	1,210	849
Apparent Consumption	1,290	1,983	7,474

In the early 1980s, production of coated paper was just about equal between the U.S. and Western Europe. But after growing at a double-digit pace over the last eight years, coated paper production in Europe has surpassed that of the U.S. by nearly 50%.

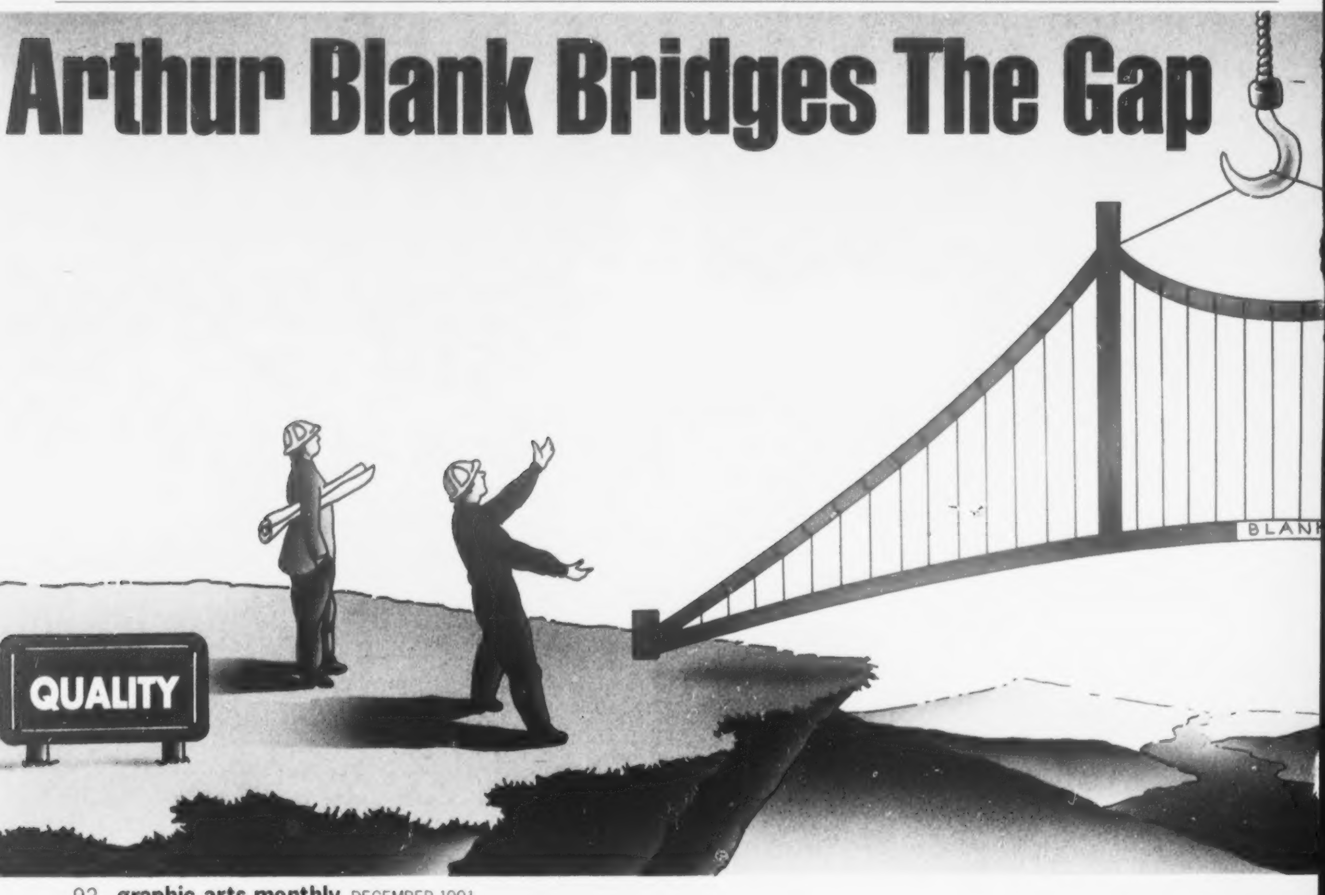
Coated paper production in the European Community and the European Free Trade Association hit 10 million metric tons in 1990, easily eclipsing the seven million tons produced here. Since 1983, coated woodfree (free-sheet) capacity there doubled to 4.6 million metric tons and coated groundwood capacity grew by 80% to 5.5 million tons.

Supercalendered (SC) paper consumption in Europe stands at 2.2 million tons, and although it has not experienced the fantastic growth rates of coated papers, announced new capacity will increase supply by 30% in the next three years.

Several factors account for this development. Because of the relatively high wood costs, particularly in Sweden and Finland, producers have been forced to enter value-added markets. For non-integrated producers, the utilization of inorganic materials to supplement high-cost, imported woodpulp has been a focus.

Manufacturers have also recognized the profitability of high-quality publication grades and see the increase in cash flow opportunities as effective in expanding operations either through merger and acquisition and/or capacity addition. The rise in pure consumerism, along with the GNP, has given advertising and other marketing vehicles new life for producers of consumer goods, and their choice, so far, has been the print media.

The capacity growth heading into the 1990s is starting to squeeze profits, and most estimates find demand falling about


Arthur Blank Bridges The Gap
QUALITY
BLANK

15% to 20% short of supply, meaning downtime, inventory reductions, and permanent retirement of some capacity. The lightweight coated market (LWC) is on the higher end of those estimates, while the SC market is currently on the lower end. Those positions are set to switch in two to three years.

The coated groundwood segment is still expanding (nearly one million new tons in the last three years) and prospects for growth are less optimistic, especially given the no-growth (i.e., GNP) climate.

The graphic arts industry is said to be greater in Western Europe than in the U.S., despite the immaturity of some prime advertising markets (such as Germany). The demographics of Europe indicate a large spread of consumption of publication grades, influenced primarily by availability of raw materials and traditional methods of communication.

The relationship between consumption of paper and GNP is not unique, and present market conditions (no growth, but more paper consumption) prove that theory. If GNP is used exclusively to forecast growth, then the "Mediterranean Basin" appears to be the bright spot and the point of marketing emphasis. Spain and Italy have already demonstrated an enormous potential for increased paper consumption since the early 1980s.

The key driving force remains expenditures on advertising. The deregulation of television in Europe has not cut paper usage but rather increased it substantially. For example, the introduction of commercial television in Italy beginning in 1980 tweaked paper consumption significantly, and is slowing down now. Spain is just starting this upward climb.

European TV watchers enjoy reading about upcoming programs and news of their favorite stars on both national and regional levels. France has at least three television magazines that are distributed nationally, countless regional magazine and newspaper supplements, and is in the middle of a price war and consumption binge.

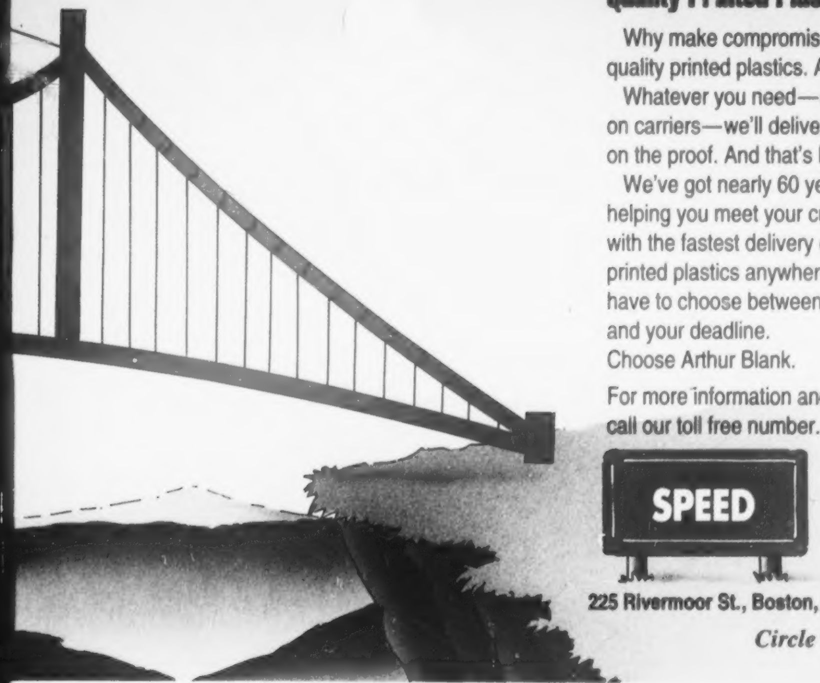
Today's market downturn illustrates the linkage between electronic and print media advertising, as both have fallen in equal amounts.

Spectacular growth has been apparent for the direct-mail communications between quality-of-life industries and upper-income households. A boom in catalogs, brochures, and "leave behinds" has boosted the printed paper markets by 10% and more through most of the 1980s.

Another reason for the strong capacity growth of coated paper is the opportunity to export. European producers ex-

(Continued on p. 96)

Between High Quality and Speed



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port more than 15%, or 1.5 million metric tons, to every corner of the world; the biggest single market is the U.S., which takes over one-third of the total. The market in the U.S. was available simply because of the lack of U.S. exports and raw material differences that allowed European products to distinguish themselves in niches.

Although much of the coating technology was developed in the U.S. (Beloit's short dwell coating head, Georgia kaolin product proliferation), it was European producers who continued the use of different materials to exact a specialty that would be attractive to printers, publishers, ad agencies, and the like to accept European products, which they perceived as having higher quality.

With the growth of coated paper capacity in the U.S. and the technology transfer about to take place, the conflict between the major producers is evident. The first shot was taken by the U.S. via an anti-dumping suit filed against some LWC producers, particularly in Finland, which is yet to be fully resolved. European producers cannot afford to lose their U.S. market shares at a time when growth in Europe's traditional markets is slowing and the newly available Eastern markets are not yet able to buy paper because of a lack of hard currency.

The result will be continued price pressure, particularly from American producers wishing a place in the European market; more media specialization, including a shift away from newspapers; globalization of the publishing industry, lending titles and ideas to a wider readership; and resolution of trade conflicts via establishment of niche markets either from developing printing technologies or paper technologies, or both.

To compete in European markets, U.S. producers will be forced to introduce new coating materials and technologies, will have to learn to deal with finicky national distribution methods and organizations, conform to European standards of quality, and participate in the dialogue between consumers, distributors, environmentalists, and governments.

Europeans will need to double-up their marketing efforts in the U.S. to include price considerations, supply guarantees, and assisted technology transfer in printing, and to fit any other desire of the price-conscious U.S. consumer.

The threats in the European paper industry are more pronounced than in the U.S. Most notably, environmental pressure is intense and growing. Secondly, the use of office automation equipment is more easily accepted, and in an environment of slower commercial real estate growth, cost-conscious office managers may not want bookkeeping and information storage overwhelmed by paper.

Printing technologies like the laser printer may be reserved only for a final communication, and currently do not allow use of mechanical pulp-based sheets (they are too hot).

The long-term outlook for coated publication papers in Europe remains optimistic. Any increase in GNP has a multiple effect on advertising expenditures, and for those markets which have growth in consumption available, the multiple will be even higher. The television market will never be able to reach the specialization levels of print media, and given the linkage between outlets of information, any pan-European growth in TV will help publication-grade papers.

ers as to whether the flow of petroleum-based raw materials would continue uninterrupted;

—Ramifications of attempts to achieve compliance with the Clean Air Act amendments of 1990 through reduced air emissions;

—Expanded use of recycled paper products as an element in programs to control the solid waste crisis; and

—Intensified marketing promotion from the domestic agricultural sector, seeking to expand markets for its surpluses.

The American Newspaper Publishers Association (ANPA), recognizing some of these factors early, was among the first to sponsor research aimed at finding renewable resources as alternatives to petroleum-based raw materials. Their interest was, understandably, principally aimed at news inks.

This research effort, conducted by ANPA in the 1970s, identified soya bean oil as a means for providing positive benefits to newsinks, including enhanced stability, cleaner color development, and increased rub resistence.

After ANPA licensed the technology its researchers had developed to printing ink manufacturers, ensuing improvements in newsink formulations quickly followed. By the late 1980s, the commercial marketing of soya oil-based newsinks to the newspaper industry was well underway and has continued to gain broad acceptance among newspaper publishers.

Though these products have been well received, their news ink use was predominantly limited to colored inks. But now, principally in response to pressures for cleaner air and for reduced solid waste disposal, the use of soya bean oil has expanded to the above-mentioned applications for other printing processes. As a result, many printing ink manufacturers now offer soya oil-based inks as an important part of their regular product lines.

But technical problems still remain. Soya and other vegetable oils cannot be used in all types of printing inks, particularly flexographic and gravure inks. Such oils have been limited to use in paste inks, such as newsinks and lithographic inks. Because newsinks, in particular, dry by penetration and absorption, it is theoretically possible to substitute soya oil for petroleum oil in their formulations.

The soya oil-based inks perform well. They provide excellent press stability, brighter colors, better lithographic properties and improved ink transfer. Because of these variables, some printers also assert that ink mileage is also appreciably increased.

Present technology, however, does not yet permit the complete replacement of petroleum oils in other types of printing inks, such as those used in commercial offset or heatset web offset formulations. This results from the chemistries of the formulations, the drying mechanisms involved, press speeds, and the broad range of substrates now employed by today's printers.

In the second part of this article, appearing next month, the characteristics of these inks will be dealt with in more detail. And an attempt will be made to analyze some of the environmental claims made for these inks.

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graphic arts monthly

THE MAGAZINE OF THE PRINTING INDUSTRY

Paper Outlook 1992

Soaring Supply, Sagging Demand Create Price Benefits for Printers

Print Target Market: Health Care *Saddle Stitchers*

VOLUME 64, NUMBER 1

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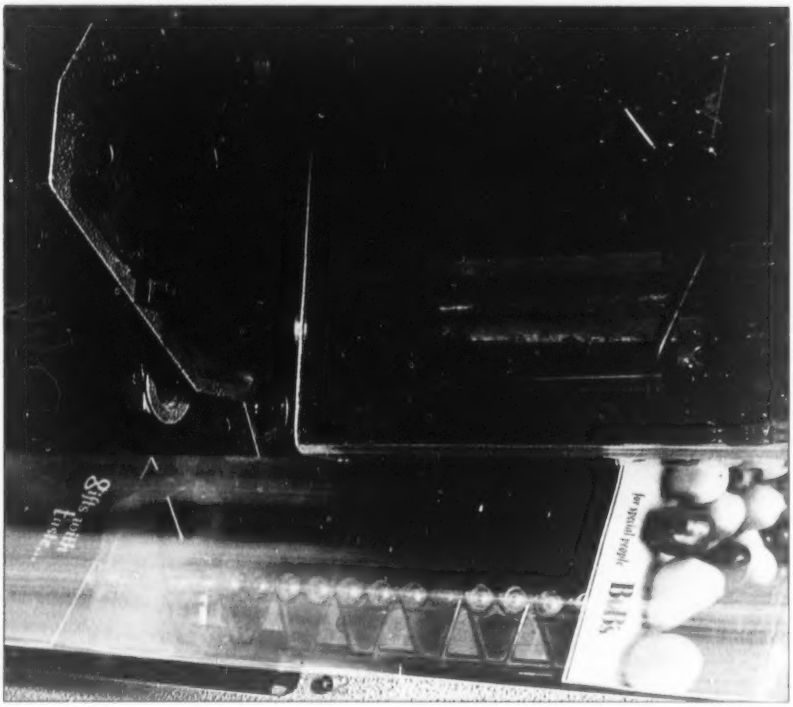

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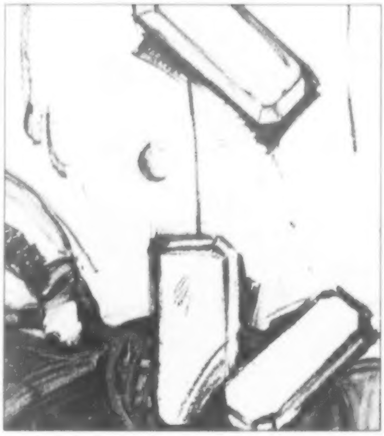

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Art Director Karen Lehrer

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Peter Johnston (212) 932-3368

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowmaa, Theodore Lustig, Michael Ducey

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Kevin D. Thomas (212) 463-6843
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Direct Marketing Manager
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Production Manager
Daniel Coakley (212) 463-6545

Promotion Manager
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Bulk Reprints Carol Bien
1-800-323-4958

Supplement Reprints Cathy Dionne
1-800-523-9654

Circulation Director
Ed Christ (303) 398-7609

Subscriptions/Back Issues
1-800-637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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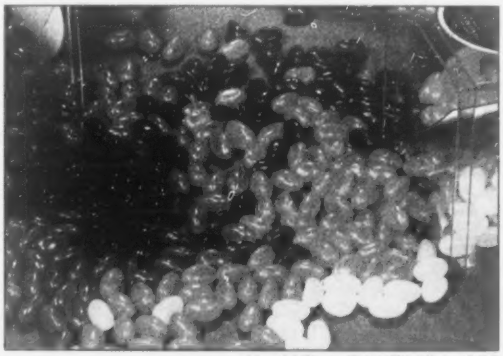

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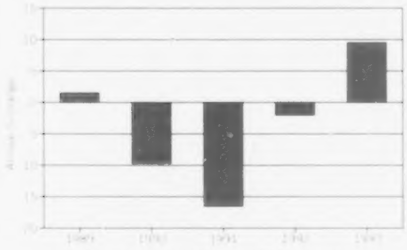
Worst Is Over For Print Machinery

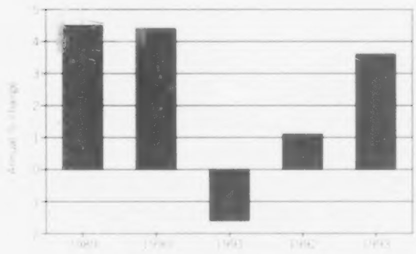


Printing Machinery Shipments

Source: NPES Forecast: Cahners Economics

The printing machinery market is struggling, along with the pervasive economic slowdown. Despite falling interest rates, printers have held back on their capital spending plans. Still, investment in equipment will be vital for survival in this industry in the next decade. In particular, technological change and environmental regulations will put added pressure on printers. Orders for printing machinery plunged in the first quarter of 1991. Machinery shipments dropped in the first quarter—9.4% below a year ago. Strong foreign demand for equipment should prevent shipments from falling much further. Exports stood at nearly $257 million in first-quarter 1991, slightly above year-ago levels. Unfortunately, imports also increased substantially, leaving an $89 million deficit in equipment trade. The recovery will be modest, with the growth rate becoming positive in the second half of 1992. Equipment shipments are slated for a 9.5% fall by the end of this year, to $2.39 billion. Growth rates are expected to reach 7.3% in 1992 and 8.6% in 1993.

Flat 1992 for Supply Shipments



Printing Supplies Shipments

Source: NPES Forecast: Cahners Economics

Compared to last year, the index of graphic arts supplies shipments fell 1.7% in the first eight months of 1991. At this pace, supplies shipments are slated for a 1.7% drop by year-end—the first actual decline in a decade. Over the last five years, annual growth averaged 3.7% per year. The decline in 1991 will bring shipments to a total of $1.8 billion. The situation is bound to worsen before it improves. The international trade situation is mixed, with both imports and exports on the decline. Last year, imports of graphic arts supplies fell 2.9%, while exports dropped 4.1%, leaving a trade surplus of $95 million. Exports, which represent over 20% of total shipments, remain a very important market for domestic manufacturers. The outlook for growth of exported supplies is positive, but slow. Shipments of printing supplies should reach the slowest rate of growth early in 1992, and then slowly begin to recover. The upturn will be very modest, however. In 1992, shipments will post a slight 1.1% increase to total $1.82 billion. Growth of 3.6% is projected for 1993.

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Industry employment has been declining for more than a year and currently stands at the year-end 1987 level. In fact, commercial printing wages are headed for the slowest annual gain since 1986. The industry's productivity index has reached record-high levels. Productivity measures the output produced by one hour of worker time. With the number of workers employed decreasing faster than production levels, productivity has soared. Following a substantial gain in 1991, productivity growth will slow over the next few years.

SUPPLY INDICATORS

				Annual Percent Change			
Employment (1)	**Sep 90**	**Aug 91**	**Sep 91**	**1990**	**1991**	**1992**	**1993**
Printing & publishing	1568.1	1526.5	1523.6	0.7	-2.3	-0.1	1.8
Commercial printing	550.1	536.1	535.8	1.1	-2.4	-0.3	2.0
Productivity (2)							
Printing & publishing	116.5	125.4	123.1	2.2	3.6	1.8	1.9
Average Hourly Earnings (3)							
Printing & publishing	11.41	11.56	11.67	3.4	2.3	2.7	3.0
Commercial printing	11.73	11.83	11.96	3.5	2.1	2.8	3.0
	Q3/90	**Q2/91**	**Q3/91**	**1990**	**1991**	**1992**	**1993**
Graphic Arts Machinery (4)							
New orders	114.6	106.7	112.1	-13.7	-10.8	10.3	1.2
Shipments	137.7	121.6	108.2	-9.7	-16.5	-2.0	9.5
Graphic Arts Supplies (4)							
Shipments	151.6	154.1	149.4	4.4	-1.6	1.1	3.6

(1) Thousands of employees, U.S. Dept. of Labor. (2) Index 1977=100, Cahners Economics. (3) Dollars per hour, U.S. Dept. of Labor. (4) Index 1982=100, National Printing Equipment and Supplies Association.
All forecasts by Cahners Economics.

Overcapacity Plagues Paper

Supply flood nearly complete in a weak economy; expect a balancing act until 1994.

Tom Tracy

Producers of graphic arts papers had a tough year.

By Michael J. Ducey
Publisher of Pulp Industry Advocates, a San Francisco-based industry newsletter.

It was a rough ride for producers of graphic arts papers in 1991. Coated paper production will end about 6% lower than 1990 (see Table 1), while capacity continues to grow double digits annually. A big drop in the summer, helped by an import halt, drove prices down. Manufacturers' marketing efforts have moved toward quality, recycled-content options, and vulnerable niches like sheetfed offset, where imports once flourished.

Printers take note: prices reflect a buyers' market, with reportedly heavy discounting through 1991 and a falling producer price index. Premium coated grades seem to be taking the greatest price dives. Lightweight prices are sliding more cautiously, though steadily. Uncoated freesheet prices dropped sharply at the beginning of the year and recovered forcibly later, with flat demand and a 10% rise in capacity.

Pillars of the paper industry, coated and uncoated freesheet, rocketed 2.6 million tons in the lead-off innings of the 1990s. Unfortunately, the consumption growth rate of the previous decade disappeared and exports, no matter how hard the dollar fell, could not pick up the slack. Consolidated Papers' new PM16 machine is the last new capacity in either segment for two years and possibly three, with some incremental adjustment at existing sites.

Lightweight coated (LWC) should tighten and firm for the next two years, with no new machines and a withdrawal of imports. Supply will remain nearly constant over the near term, while demand should bounce back in second- or third-quarter 1992.

Canadian production is off 10% this year and exports to the U.S. have declined 17%. No new capacity has been announced and some domestic producers are teetering on the brink. And a weak dollar negates any premium that might be worth developing. The Canadian industry forecasts are bleak.

The dollar looks like it will retain its currency float between 1.5-1.80 German marks and 115-130 yen, so imports are not likely to challenge.

The U.S. case against four European producers, including several Finnish producers, is a wild card, but a mild one. If the charges stick and the duties are imposed, domestic producers will be inclined to raise prices and hedge off the specific duty (20% to 40%).

With no markets in the U.S.S.R. and a pullback in Europe, some Finnish producers and other Europeans with a stake here will fight and continue to lose. Meanwhile, U.S.

exports jumped a quarter over 1990 and growth, helped by the weak dollar, is possible.

The demand began to fall off late in 1990, and the falloff steeper in the summer. A small blip occurred for the lightweights as a result of the antidumping ruling, leading to a summer firmness that has since been lost. The heavyweights experienced some order pickup late in the fourth quarter, mostly because of import substitution and product introductions of recycled papers.

The events of 1992, namely the Presidential election and the Olympic Games, have traditionally inspired coated paper consumption, sometimes double and even triple the rate of gross national product. Most producers will settle for any increase in 1992.

The Olympic Games (Georgia-Pacific was recently named an official sponsor) take place in Europe, where overcapacity of coated paper exists and a recent demand sag in supercalendered (SC) markets was registered. European suppliers, already alerted by fantastic advertising growth in Spain (host of the Summer Games) and faced with softening home markets, are well entrenched to capture local consumption growth.

The Presidential election is also not as bright a picture as it might have been. Four years ago, the opposition party had a war chest twice as big as it is today, and the incumbent party had even more. This year, contributors to the opposition party's campaigns have held back, perhaps anticipating more candidate announcements. The incumbent is taking a very low profile, with a leaner and more localized effort.

Electronic media will probably receive the bulk of the $100 million that is currently available. If the race heats up, local interest improves, and contributors start writing checks, then the budget could double rather easily and print media could snatch up a greater percentage.

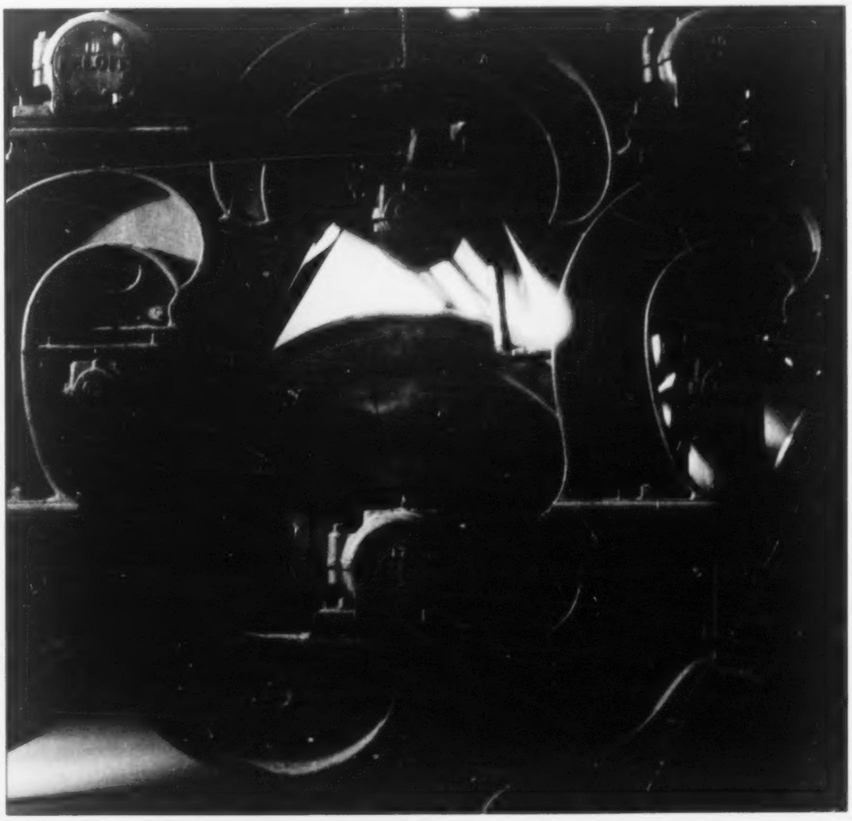
The forecast for domestic prices is not too hard to see. Upward pressure on coated grades may occur in the second quarter, if the Olympics and election spending commence, and seasonal factors are not too severe. Prices are near or at rock bottom, so downward movement is not probable.

One source noted that a survey of consumption in the years following a coated paper decline showed that growth was realized at a low of 6.5% and a high of 18%. He's shooting right in between, meaning increases, relieving capacity and raising prices along a parallel.

With paper machines now running at less than 90% operating rates, most mills have taken several opportunities to test new product manufacture and market acceptance. New products for commercial printers are targeted to two specific niches: sheetfed offset and recycled-content grades. Because of the higher margins and economies of scale of web offset, domestic producers, via their merchants and distributors, flocked to that market through the 1980s. New machines were built to serve this fast growing segment.

In sheetfed markets, limited available capacity left the door open for offshore producers. Exporters, many producing with smaller machines and targeting small, localized printing houses in Europe, increased their efforts in the U.S. As demand fell off in the web offset markets, U.S. producers, almost completely out of

Heated drums of paper machine dryer section belie the cooled-down operating rates in many mills today.



Neenah Paper

the sheetfed market, reentered one by one. Now the field is quite crowded.

Some producers are making sheetfed grades with machines that were designed for web grade production, using new or excess sheeting capacity in target areas.

Mead is a recent example of a producer exploiting this trend. Its entrance into the "economy" grades—sheetfed coated stock with rich gloss and low 80s brightness—is attacking imports utilized by printing houses with shorter and more localized runs. The company's Chilpaco mill has been de-bottlenecked, and 30,000 tons per year (tpy) of new capacity will be brought up over the next few years to serve this market (a 60% production increase).

Lots of new grades were introduced that meet the EPA's so-called 50/10 standards, i.e., 50% preconsumer waste and 10% postconsumer waste. Grades across the basis weight spectrum, from annual report stock to uncoated business forms, have been successfully sold in most markets, even though they fetch a higher price. Consumption growth and grade proliferation is likely throughout the decade.

U.S. Paper Consumption

Newsprint and Printing & Writing Consumption, 1989-1991 (000 tons)
1991 data and % change are annualized year-to-date, as of the end of the third quarter 1991.

Shipments of	**1989**	**1990**	**1991**	**% Change**
Newsprint	6,079	6,621	6,679	+ 1.6
Printing & Writing	21,626	22,371	22,003	- 1.5
Uncoated Groundwood	1,743	1,806	1,772	- 0.2
Coated Groundwood	4,059	4,233	4,049	- 3.4
Coated Freesheet	3,157	3,303	3,215	- 3.2
Uncoated Freesheet	11.081	11,503	11,491	0.0

Imports of	**1990**	**1991**	**% Change**
Newsprint	8,299	7,642	-11.1
Printing & Writing	3,104	2,848	- 6.4
Uncoated Groundwood	1,337	1,318	- 1.0
Coated Printing & Impregnated Papers	936	802	-15.8
Uncoated Freesheet	752	637	- 9.5

Exports of	**1990**	**1991**	**% Change**
Newsprint	535	693	+35.6
Printing & Writing	664	928	+37.7
Uncoated Groundwood	75	123	+69.5
Clay Coated Paper	218	268	+19.6
Uncoated Freesheet	232	354	+51.5

Consumption of	**1990**	**1991**	**% Change**
Newsprint	14,385	13,628	- 5.0
Printing & Writing	25,411	23,923	- 6.0
Uncoated Groundwood	2,868	2,967	+ 3.0
Coated Paper	8,254	7,798	- 6.0
Uncoated Freesheet	12,023	11,774	- 2.0

SOURCE: American Paper Institute, New York, NY

Most grades are so new that it is difficult to characterize the full market response, but both paper makers and printers are not as excited as marketers and salespeople about the furnish switch. For 50% preconsumer waste products, it is difficult to distinguish between virgin and secondary fiber grades. Indeed, manufacturers have had to offer duller, off-white brightness papers to help promote the concept.

The introduction of postconsumer waste is even slower and more loathsome in the machine rooms, since the immaturity of the product and its producers cause worry to conservative paper production and pressroom managers. Regardless, the products containing postconsumer waste are charging hard, and now producers of even the most high-quality enamel grade must have this alternative in their arsenal.

About two million tons of deinked pulp capacity came on in 1990-91, and half a million more tons have been announced. Another 250,000 tpy of recycled printing and writing papers are scheduled. Papermakers know that recycled content is an issue for the foreseeable future; each is addressing it to secure future markets.

In the uncoated freesheet markets, Boise Cascade introduced a cut-size xerographic sheet called *Aspen*, and plans to launch an offset grade soon, both containing waste fibers. Both have demonstrated higher smoothness resulting from the fines and smaller fibers forming in the sheet, and they have been accepted by both public and corporate customers.

Boise's Vancouver, Wash., mill has been switched back to recycled production from carbonless copy, which was being made prior to the attempted sale of the mill to Appleton Papers. After the deal was nixed by the 'ederal Trade Commission, Boie resumed recycled production t favorable cost, given the proxmity to wastepaper sources and onsumers.

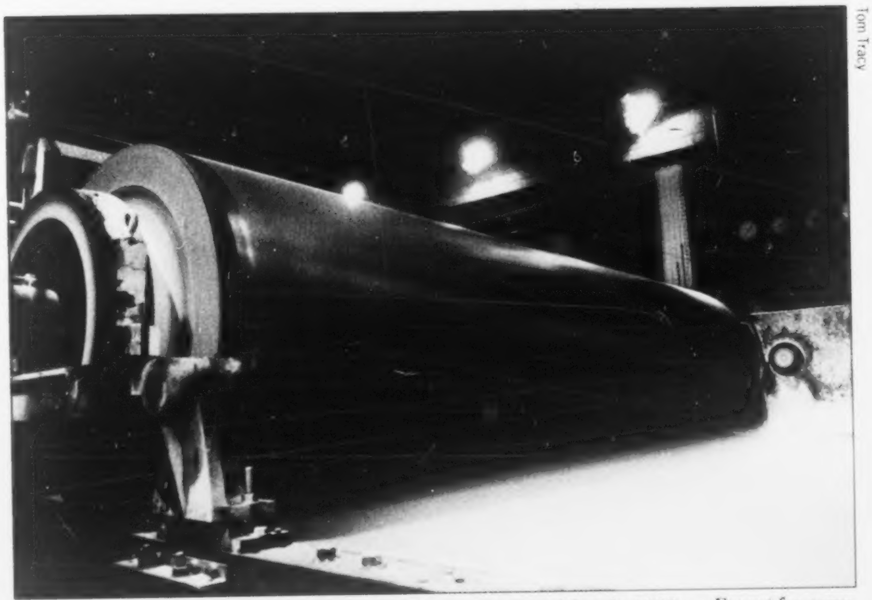
Computer printout (CPO) is a rimary furnish component, ather easy to deink and run on he machines with good formaion. The brightness of these grades is purposely lower, about 81, in an attempt to illustrate the eal value in recycled stock, while offering the producer better production economics.

Boise's Coated Division is market testing a 60 lb recycled paper inside its *Dependaweb* line, which was widened in the #4 range to include 40 lb and 43 lb weights, in a response to postal rate increases.

International Paper's *Springhill* line added *Incentive DP*, a dual-purpose sheet in the office products sector. The sheet contains 40% preconsumer and 10% postconsumer, has an 83 brightness and is acid-free. Springhill also offers 50/10 *Incentive Offset* in 50 lb and 60 lb weights. IP's Hammermill Papers released 50/10 grades in its *Opaque* series for 50 lb and 60 lb sheets, and text and cover varieties. Hammermill is also getting into less-expensive grade structures with its new *Regalia* line of text, cover, and writing papers.

Naturally, competition between recycled sheets is hot, as many producers have entered the business forms and xerographic paper markets with varying pre- and postconsumer contents over the past two years. The 50/10 grade is most common and has been selling well in retail outlets. Interestingly, eyebrows are being raised when a purchase of recycled xerographic paper at a premium is made at a corporation that supposedly is on a cost-cutting binge.

With the one million new tons of uncoated freesheet available this year from three machines, the discounting had been heavy up until fourth quarter 1991, when a forced price increase was announced and held. The cost differential for uncoated freesheet grades is significant, perhaps 10% or more. As one source noted, "They [customers] are not all putting their money where their mouths are."



Tom Tracy

Except for some recycled grades, production levels in the paper industry were generally down in the past year.

The market is fairly balanced and the supply is still limited. The real demand boom is likely after some settlement of the recycled content definition is reached and the economy gets back on track.

The coated papers segment is also heavily involved with recycled. James River introduced its *Echo* line, a 50/10 coated groundwood with high gloss. Its *Retrieve* line, also 50/10, has filled out to include text, cover, writing, and label stocks. It has even crossed over into the *King James* cast-coated line with two new products.

The *Graphika!* board line has expanded with a "100" product, i.e., 100% wastepaper, based on 60% postconsumer content. James River recently responded to an interest on the West Coast for a recycled-based, unbleached envelope stock, and now sells a 50/10, 24-lb product.

The company is supporting all this activity with a new, 300 tpd (tons per day) deinked pulp line at the mill in Halsey, Ore., scheduled for start-up in March 1992. The new line will allow further product development and expansion of recycled papers at the Camas and Wauna divisions.

P.H. Glatfelter has moved aggressively in recycled. Its Neenah mill is said to be the largest printing and writing production facility for recycled-based grades in North America. The deinked pulp line and machines can produce both uncoated grades or base stock for the coating machine at Spring Grove, Pa.

The company is continuously working on its Environmentally Pure Acid-free, or EPA, line to include 50/10 and larger fractions of both preconsumer and postconsumer waste. The mills ship almost all custom orders and carry very little stock. The specialized production, highlighted by a versatile coater, gives P.H. Glatfelter an early edge in serving these orders among and away from its traditional book publishing markets.

Neenah Papers re-introduced products in its *Environment* line, 100% recycled papers with 15% postconsumer waste. In 1990, laid and woven finishes were introduced, and in 1991 a linen and five new colors were released. Neenah built its own stock of these papers and slowly integrated them into merchant stocks to gauge the marketplace and work closely with merchants and distributors.

Now the merchants are said to

be well stocked with Neenah's new recycled papers, including an addition to its well-known *Classic* line, a laid grade containing 15% postconsumer waste, in four colors. The recycled papers have had the fastest growth of any introductions in the company's history, needing only a little more than a year to obtain merchant stocking.

Now completing the line with the three finishes and variety of colors, Neenah hopes to offer its graphic design and quick-customers the opportunity to selected recycled papers alongside their virgin paper purchases.

Potlatch and Consolidated Papers, traditionally premium coated paper producers of high regard, are also hopping on the recycled bandwagon, although more cautiously. Potlatch expanded its market-recognized *Quintessence Remarque* premium coated grades to meet the EPA 50% preconsumer waste standard, and is developing postconsumer waste furnishes which could be ready later this year.

> THE INDUSTRY STRUCTURE HAS NOT CHANGED MUCH SINCE THE BIG MERGERS OF THE MID-NINETEEN-EIGHTIES.

The annual report and corporate promotional materials customers are indicating stronger interest in these grades to keep the corporate image up with the times. Shipments require a price premium since production cost (both in dollars and experience) rises as more furnish accommodations for secondary fiber are made.

Potlatch has also expanded its *Vintage* line with a Velvet Creme web and sheet offset enamel grade, where it believes its position is rather unique, and the company widened its *Eloquence* top-of-the-line product with a 100-lb cover stock to match its already well-known 85-lb cover stock product.

Market leader Consolidated Papers is, naturally, expanding in both the segments of the growth. Last year, its *Futura* line released a No. 2 sheetfed offset grade, and the *Concycle* line released a No. 4 and a No. 5 web offset grade, all meeting the 50/10 requirements. *Orion* No. 4 web offset grade for catalogs was also introduced, and its *Fortune* gloss No. 4 sheetfed was reintroduced, in preparation for the new machine start-up scheduled for March; called PM16, the new line will run at 3,000 feet per minute, trimming at 285" wide. It will have numerous flexibility design characteristics to serve both web and sheet offset consumers. The state-of-the-art facility will include an automated coating kitchen, two 12-roll calenders, multipocket sheeter, and various other equipment to aid production as the market dictates.

Sheetfed offset markets are set for recapture. *Reflections* added a 90-lb web offset, and new *Centura* and *Consoweb* cover stocks were initiated.

The industry structure has not changed much since the big mergers of the mid-1980s. However, Georgia-Pacific finally made its move with the former Great Northern Nekoosa mills in Maine by selling an 80% interest to Bowater for $300 million cash. The deal includes the two mills (1,125 tpd of coated and uncoated groundwood, 1,000 tpd of newsprint), 2.1 million acres of timberland and a lumber works, and a hydroelectric station.

The grade structure fits snugly with Bowater's own product line and market strategy. Bowater makes newsprint and LWC from southern pine, and has good coverage in the South and Midwest markets. Great Northern makes newsprint and a variety of coated grades from northern spruce, and has strong presence in the Northeast markets.

Bowater also produces market pulp and with Great Northern, a consumer, has reduced its exposure in these markets. For Georgia-Pacific, the deal represents a much-needed cash infusion to pay off debt incurred by its $3.8 billion merger; it retains a 20% stake and has an option to sell the rest to Bowater at the end of the second quarter of 1992.

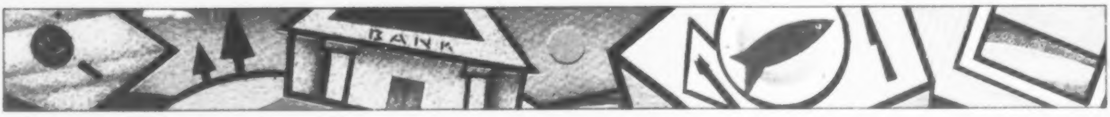
Georgia-Pacific recently started up an uncoated freesheet machine at the Great Northern Ashdown mill. Bowater may announce an LWC expansion for its new Maine mills next year.

In other business notes, Willamette bought Penntech Papers and started up an uncoated freesheet at Bennettesville, S.C.; Sealed Air bought Georgia-Pacific's Hopper mill in Reading, Pa.; and Fox River completed its purchase of the Howard Paper Mills.

Also, Union Camp started up an uncoated freesheet machine at its mill in Eastover, S.C.; Abitibi-Price shut Provincial Papers and Georgetown, Ont., mills; and two uncoated freesheet machines, in Mexico and in Brazil, reached design production and each has begun exploring sales in North American markets.

Thus, it was by no means an idle year in the paper industry; still, paper producers and users look forward to a more balanced year in 1992.

Circle No. 104 on Reader Service Card →



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Health Care Heats Up

This article begins a new series for *Graphic Arts Monthly*–Print Target Markets–designed to be particularly helpful to our single largest constituent group of readers, small and medium-size general commercial printers.

In this series the focus is on other industries: major purchasers of commercial printing. Each installment will deal with a single industry (or related group of industries), giving details on its size, the types of printing it consumes, its structure, the geographic distribution of its sites, and its historic and projected growth. It is our hope that this information will assist printers in evaluating centers of economic activity in their own area as possible targets for marketing their printing services.

We begin the series with the health care industry.

Data for most of the industries in this series will include specific revenue projections for the next four years. Health care, however, is measured by the Department of Commerce not in terms of gross revenues and profitability, but in terms of total expenditures. It is approached, in other words, not as an industry but as an overhead item; the question is not how much money it is making, but how much money it is *costing* us. By the same token, rather than the exact to-a-fraction-of-a-percent forecasts it gives for other industries, Commerce notes only that health care expenditures will probably increase 12% to 15% per year between now and 1995.

This series looks at industries that are major commercial printing purchasers.

We note that health care is a money-making venture like other industries; in some cases, a highly profitable one. We note also that medical costs, medical profitability (especially in the case of pharmaceuticals), medical insurance, health care industry practice, and national policy with regard to all of these are being passionately debated as we go to press. It seems certain health care will continue to be a major customer for the printing industry.

Each of these double-gatefold forms also contains news on the fortunes of the commercial printing industry in one geographic region. Subject of this month's Regional Update: the South Atlantic.

Bulk reprints of this installation of Print Target Markets may be ordered directly from Carol Bien, Cahners Publishing Company, Reprint Department, 1350 E. Touhy Ave., Des Plaines, Ill. 60018; single- copy reprints from Cathy Dionne, at the same address.

Annie Gusman

By Peter Johnston
Special Projects Manager

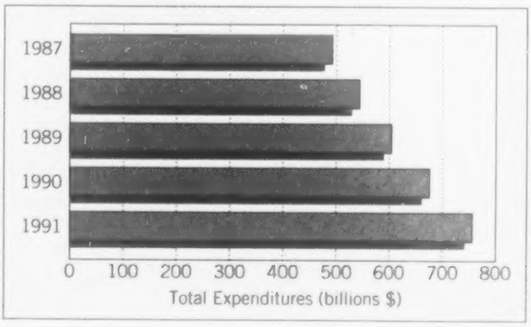
Health Care at a Glance

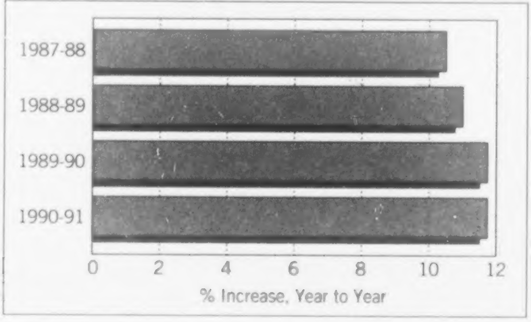
With over seven million employees, health care is the fourth-largest industry in the U.S. (measured by employment). Service industries tend to be much larger than manufacturing industries; printing, for instance, though one of the larger manufacturing industries in the nation, employs fewer than one million. Health care is the fifth-largest printing customer to be covered in this series; its annual purchases from printers total nearly $1.7 billion.

Total Establishments: 417,183
Employees: 7,221,955 (Fourth-largest industry in U.S. by employee base)
Total Annual Payroll: $159,061,465,000

Total Expenditures on Health Care

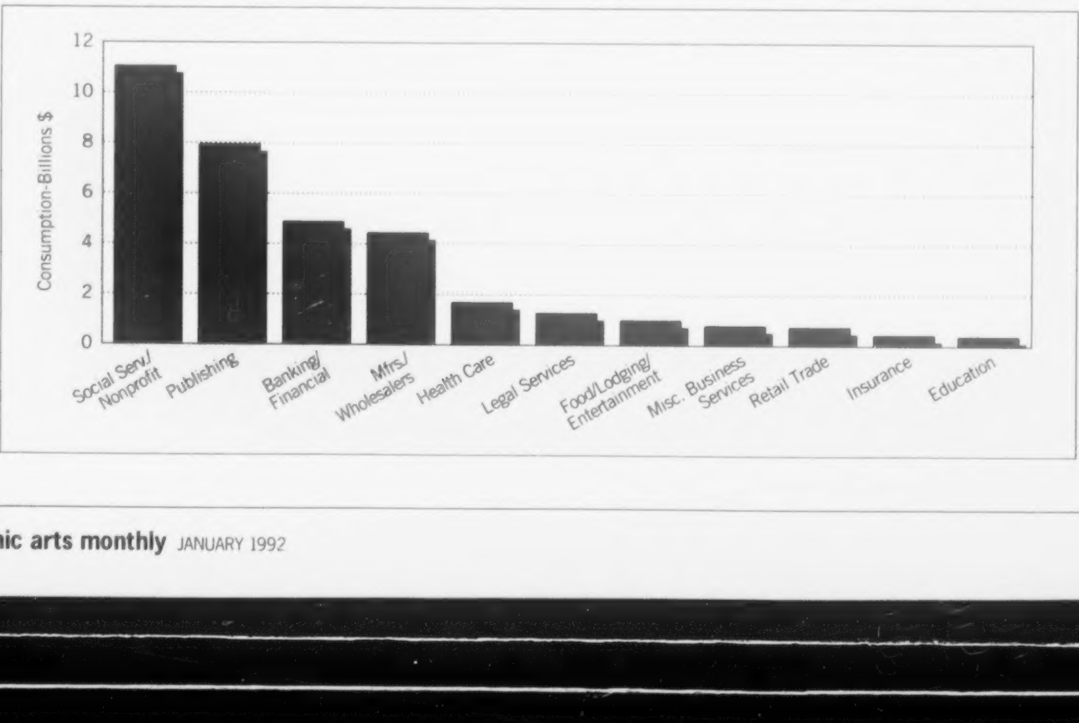
Health care is measured by the Department of Commerce not in terms of gross revenues and profitability but in terms of total expenditures: the question is not, as in other industries, how much money it is making but how much money it is costing. Commerce projects health care expenditures will rise 12%-15% per year from now to 1995, faster than GNP growth, and higher than most other economic sectors.

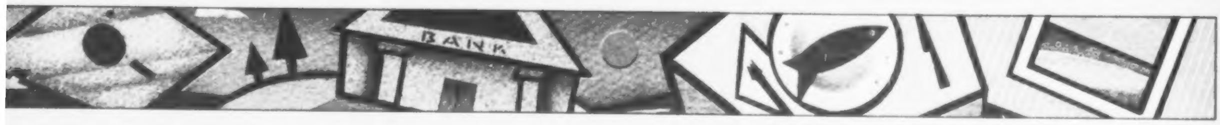




Ranking of the Print Target Markets

Industries to be covered in the Print Target Markets series in 1992 were selected from a DRI/McGraw-Hill listing of the largest purchasers of goods and services from commercial printers. This list was further refined by the editors, primarily by the elimination of industries that are not logical targets for small to medium-size commercial printers. The resulting list represents more than a third of all business- to-business printing sales.

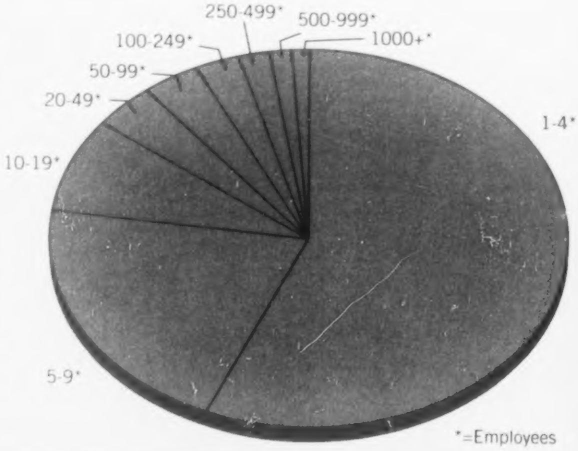




Health Care Establishments by Employee Size

Of the more than 400,000 establishments in Standard Industrial Classification Group 80—Health Services—91% have fewer than 20 employees; 58%, in fact, have fewer than five employees. In terms of total industry employment, however, 46% of health care workers are employed in establishments with 250 or more employees; more than two million, or 28%, work in facilities with 1,000 or more employees.

1-4 Employees	244,072	58.5%
5-9 Employees	99,939	23.9%
10-19 Employees	38,659	9.3%
20-49 Employees	15,833	3.8%
50-99 Employees	9,499	2.3%
100-249 Employees	7,365	1.8%
250-499 Employees	1,723	0.41%
500-999 Employees	1,020	0.24%
1000+ Employees	1,073	0.25%



Industry Structure

Health care facilities are divided into two general categories: offices and clinics, and institutions. The Department of Commerce maintains separate listings for the following practitioners: medical doctors, dentists, osteopathic physicians, chiropractors, optometrists, podiatrists, as well as two miscellaneous categories, "other health practitioners" and "health practitioners, not elsewhere classified." We are not entirely clear what the difference is, but we note that there are 55,000 establishments of "other" practitioners and almost 12,000 for the "otherwise unclassified" group. Offices and clinics have a tendency to be on the small side, whereas hospitals and nursing homes, of course, can run the gamut from small to quite large, but tend toward the latter. Institutions proportionately consume somewhat more printing than offices and clinics, which typically purchase the same printing products as any small business (stationery, short-run forms, etc.)

Category	Number of Establishments
Offices and Clinics	
Medical Doctors	191,971
Dentists	102,241
Osteopaths	7,164
Chiropractors	20,056
Optometrists	15,291
Podiatrists	7,487
Other Health Practitioners	66,821

Category	Number of Establishments
Institutions	
Nursing & Personal Care Facilities	18,002
Hospitals	5,221
Medical and Dental Labs	14,309
Home Health Care Services	7,462
Other Health and Allied Services	14,886

Regional Distribution

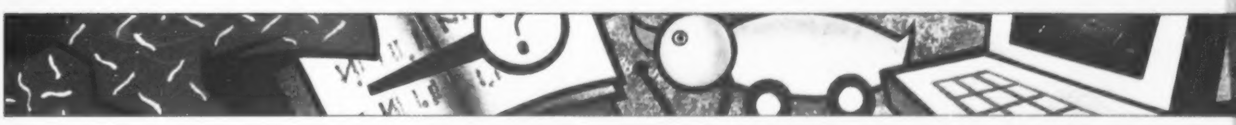
Region	Physicians	Rate*	Hospitals	Rate**
New England	33,142	262	370	603
Middle Atlantic	97,753	249	763	623
East North Central	74,290	178	1,046	557
West North Central	29,779	170	897	684
South Atlantic	77,494	193	1,073	553
East South Central	22,493	149	570	619
West South Central	41,354	156	993	547
Mountain	21,513	168	478	441
Pacific	77,616	222	834	412

* Per 100,000 resident population
** Hospital beds per 100,000 resident population
Source: Department of Commerce, Bureau of the Census

Key to Regions

The nine geographic regions, as referred to throughout this survey:

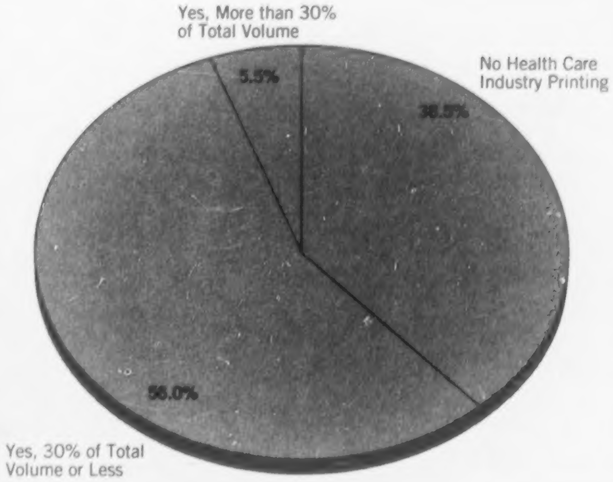
New England (NE): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **Mid-Atlantic (MA):** New Jersey, New York, Pennsylvania. **South Atlantic (SA):** Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia. **East South Central (ESC):** Alabama, Mississippi, Kentucky, Tennessee. **East North Central (ENC):** Illinois, Indiana, Michigan, Ohio, Wisconsin. **West North Central (WNC):** Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. **West South Central (WSC):** Arkansas, Louisiana, Oklahoma, Texas. **Mountain (M):** Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Pacific (P):** Alaska, California, Hawaii, Oregon, Washington.



Does Your Firm Work for this Industry?

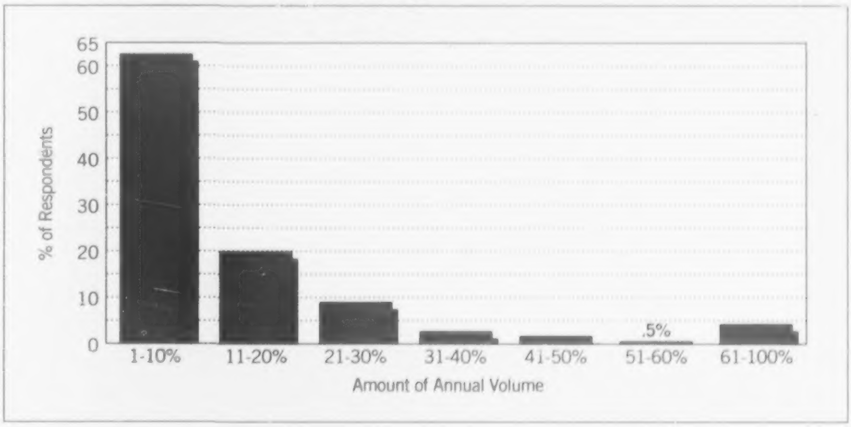
To measure the breadth of health care's impact on commercial printing, small and medium-sized commercial printers across the country were surveyed; their responses were the basis of the statistics used here. Printers surveyed were selected on a random (every nth name) basis from the current circulation list of *Graphic Arts Monthly*. More than 60% of printers responding to the survey reported doing at least some work for the health-care industry.

This was expected. Health care, like other service industries (restaurants, hotels, etc.) is widely distributed across the United States, unsurprisingly. Wherever they are and whatever they do, people need to eat, they need places to stay, and—at least once in a while—they need to go to the doctor and sometimes to the hospital.

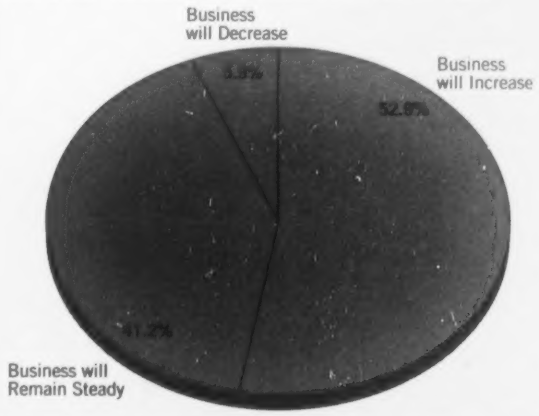


If So, How Much of Your Annual Volume is Health Care Printing?

For most respondents, printing for the health care industry represents a relatively small portion of total annual sales: over 80% of responding printers derive less than 20% of their business from it. This is typical of small commercial printers, who tend to have a diverse customer base of relatively small accounts. About 10% of respondents, however, seem to be consciously targeting this industry.



Will your health care business rise or fall?

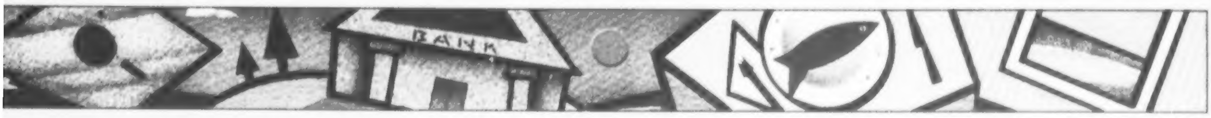


Printer-Supplied Products for Health Care

The health care industry apparently consumes more or less the same types of printing as any other business. This is an industry where personal contact counts; thus, stationery/business cards rank number-one.

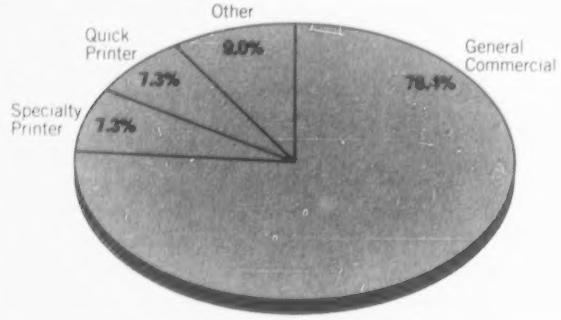
It is interesting to note how much business forms printing is done by small commercial firms; this is work that does not appear in industry statistics for business forms printing as a category.

Stationery and Business Cards	77.1%
Business Forms	74.0%
Advertising Sheets, Pamphlets or Brochures	60.9%
Unbound Non-Advertising Material	34.9%
Miscellaneous Non-Printing Services	25.0%
Bound Publications	16.1%



Regional Update/ South Atlantic

Type of Company



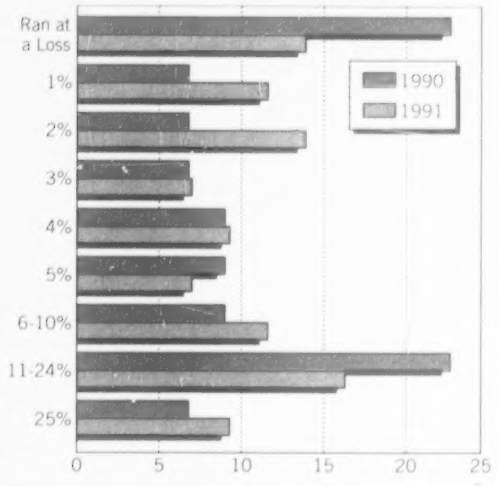
Profile of Respondents

Commercial printers in the South Atlantic region responding to a recent mail survey reported year-over-year changes in their annual sales, and also their profitability. They also revealed how they perceived the outlook for business in their area. 1991 gross sales were estimated.

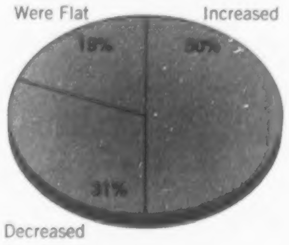
Gross Sales in 1991	
Less than $500,000	70.6%
$500,000-749,000	11.8%
$750,000-999,000	3.9%
$1 million-2,499,999	11.8%
$2,500,000-4,999,999	1.9%

# of Employees	
1-4	50.0%
5-9	38.5%
10-19	11.5%

Profit as a Percent of Gross Sales, 1990



How Sales Changed, 1990 to 1991



1989 to 1990

Sales Increased	66.7%
Sales Decreased	21.4%
Sales Were Flat	11.9%

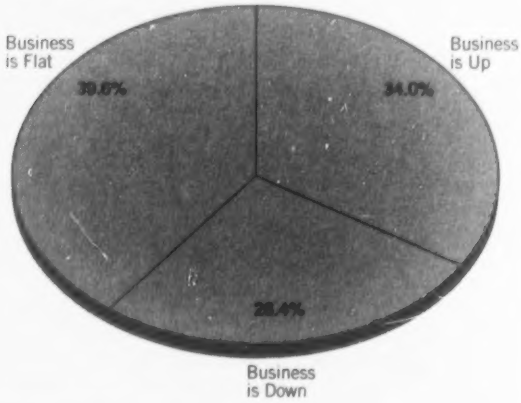
If Sales Increased 1990-1991, How Large Was Increase?

Less than 5%	13.0%
5-10%	43.5%
11-20%	17.4%
21-50%	21.7%
More than 50%	4.3%

If Sales Decreased 1990-1991, How Large Was Decrease?

Less than 5%	0%
5-10%	42.8%
11-20%	35.7%
21-50%	21.4%
More than 50%	0%

Perception Index



Comments by Printers

- Service is the key to success, and is going to be more important now with mass marketing of printing by office supply warehouses, etc.
- Business is growing as the South is growing.
- We are seeing more computer/desktop publishing forms, newsletters, etc.
- Only very necessary printing is being ordered. Print buyers are very price-conscious this year.
- The war buildup hurt business; we're recovering, but at a slow pace.
- Business is saturated in this area, with overall growth slow to nil. Those who do well will be service-oriented.
- We rely on tourism a lot, so the region has its ups and downs.

graphic arts monthly

Ink Outlook 1992

Printers Seek Proper Mix of Economy and Ecology

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Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken, Lisa Cross

Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager Peter Johnston (212) 932-3368

Project Editor Debora Clesh Toth

Midwest Editor Bill Esler (312) 226-4641

Contributing Editors Kenneth Garner, Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Michael J. Ducey

Classified Advertising Manager Kevin D. Thomas (212) 463-6843 Maureen Lewis, Assistant

Direct Marketing Manager Richard Negri (212) 463-6827

Business Manager Jerry Arotsky

Contracts Jeffrey Rothstein

Production Manager Daniel Coakley (212) 463-6545

Promotion Manager Dorian Torregrossa

Research Manager Angela Venturino Darchi

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Bulk Reprints Carol Bien 1-800-323-4958

Supplement Reprints Cathy Dionne 1-800-523-9654

Circulation Director Ed Christ (303) 398-7609

Subscriptions/Back Issues 1-800-637-6089

249 W. 17th St., New York, NY 10011
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Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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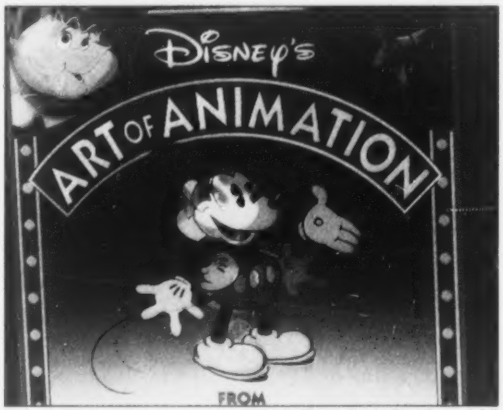

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Scholarship Search

Editor:

As the new business manager for the National Scholarship Trust Fund, I am compiling a history of all our current scholarships; since some were established through wills many years ago, we have very few records on file of the donors.

John A. Burgess, president of Graphic Arts Technical Foundation, parent organization of NSTF, suggested I contact you to see if you could help me with the more difficult ones.

I need information on the following: (1) John and Grace Goessele (he was president of Printing Industries of Illinois); (2) Norman (died in 1964) and Gertrude Jacobsen (died in 1991); and (3) Myron F. and Louis I. Lewis. For each of these I need biographies and obituaries, plus photographs if they are available.

Also, I am searching for pictures of A. Stull Harris and Harry A. Porter.

This is a very important project. If you can help me with this information or provide me with another contact, I would appreciate it very much.

Vicki L. Stone
Business Manager
National Scholarship Trust Fund
of the Graphic Arts
Pittsburgh, Pa.

Myron F. and Louis I. Lewis were sons of the founder of Graphic Arts Monthly, Abraham F. Lewis, and principals in the family business, Graphic Arts Publishing Company, Chicago.

The two were very active in industry organizations, including the Printers Supplymen's Guild, International Association of Printing House Craftsmen, National Scholarship Trust Fund, Graphic Arts Technical Foundation, and Printing Industries of America.

To honor their father, in 1950 they established the annual A.F. Lewis Memorial Graphic Arts Executive of the Year award. After Myron died in 1968 and Louis in 1973, the award was expanded to memorialize all three Lewises. The award continues to be sponsored by GAM and is now administered each year by PIA.

Readers who have information about the other individuals are asked to contact Vicki Stone at NSTF at 4615 Forbes Ave., Pittsburgh, Pa. 15213-3796, telephone (412) 621-6941.

Card Confusion

Editor:

The article in your December, 1991, issue entitled "Cards Compete in New Outlets", contains several significantly incorrect quotations that were attributed to me.

The article states that Gibson uses vat dyed envelopes; this is completely incorrect. Gibson is very proud of the fact that we produce *all* of our colored envelopes with *water-based inks* utilizing in-house technology. We feel we are ahead of our industry in this area, and we believe that this is a significant benefit to the environment compared to some of our competitors, who are using solvent-based inks or vat dyed envelopes.

Secondly, I was misquoted regarding the use of recycled papers in seasonal production, such as Mother's Day. In fact, Gibson has a sizeable portion of its Mother's Day production for 1992 dedicated to recycled paper. The apparent quotation incorrectly creates the perception that Gibson is not producing Mother's Day cards on recycled paper. This is definitely not true.

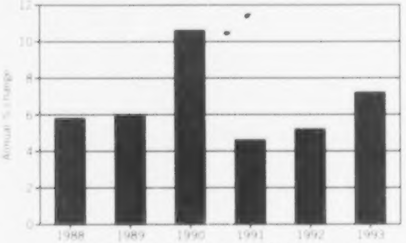
Arthur A. Slouka
Sr. Vice President, Operations
Gibson Greetings
Cincinnati, Ohio

GAM regrets any misunderstanding and hopes this sets the record straight.

Correction

In the December marketing report on Quick Printing, a line in the Mid Atlantic region box listing the Top Ten quick printers in the region was dropped at the printers, causing some confusion. At $3-10 million in sales, Printer's Places, *of* Philadephia, *and* Triangle Reprocenters, Princeton, N.J. *were number two and three on the list, respectively, following leader Pro Print of New York, at $10-20 million in sales. GAM regrets any confusion caused by the misprint.*

5.2% Rise in '92 For Print Products

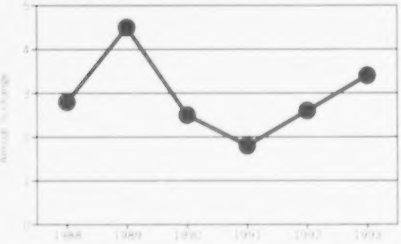


Printing & Publishing Shipments

Source: U.S. Dept. of Commerce   Forecast: Cahners Economics

Following on the heels of a sluggish economy, the printing and publishing industry has had a rough time over the past year. Total shipments of printing and publishing products rose an estimated 4.6% in 1991, less than half the growth of the previous year. In fact, 1991 marks the weakest year for printing and publishing in more than a decade. Most of this slow growth stems from the other category. For the year in 1991, shipments of newspaper, books, and periodicals are headed for a solid 8.9% increase. Meanwhile, shipments of other printed products grew only 0.6%. Over the coming year, activity will improve only slightly, as the general economy tries to pull itself out of the downturn. Printing and publishing shipments are expected to gain 5.2% by the end of 1992. Newspapers, books and periodicals shipments will post a 7.5% rise, while other shipments grow 2.9%. By 1993, stronger growth is projected, with total shipments increasing 7.2%.

Commercial Print Prices Ease



PPI–Commercial Printing

Source: U.S. Dept. of Labor   Forecast: Cahners Economics

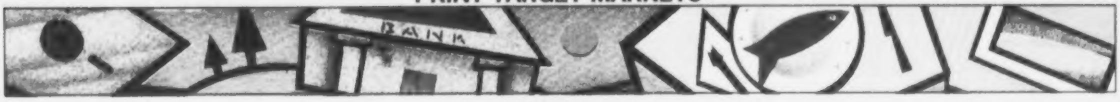
Along with sluggish activity levels, production price inflation has eased. Producer prices in the commercial printing sector increased about 1.8% last year, the smallest gain since 1987. In comparison, prices have increased an average 3.3% in each of the prior three years. Producer prices have been allowed to decline as the cost of inputs have calmed. For example, prices of paper actually declined over the past two years. The outlook for paper prices is continued slow growth; with ample capacity and sluggish demand, it is expected that paper manufacturers will not be able to pass along large price increases. Ink prices continue to post substantial gains but the rate of growth is slowing. After rising 6.1% in 1991, ink prices will gain 3.9% in 1992. Over the next two years, commercial printing price inflation is expected to slowly pick up steam. Cahners Economics projects growth of 2.6% in 1992 and 3.4% in 1993.

In its worst performance in more than a decade, the printing and publishing industry continues at a slow pace. The latest production and shipment data seem to indicate that activity has bottomed out and will not worsen. However, significant improvements will not appear for at least another six months. Fortunately, price increases remain low, and price inflation will not be a problem for some time. Overall, 1992 looks like a flat year for commercial printing, another poor year for the newspaper sector, and a comparatively good year for book and periodical publishing.

PRINTING ACTIVITY INDICATORS

				Annual Percent Change			
Industrial Production (1)	**Oct 90**	**Sep 91**	**Oct 91**	**1990**	**1991**	**1992**	**1993**
Printing & Publishing	112.9	113.1	113.9	3.1	−0.6	0.9	4.3
Newspapers	93.8	92.2	93.3	−1.0	−7.8	−3.0	2.3
Periodicals, Books, Cards	129.8	132.4	133.3	5.7	4.1	3.7	4.8
Job Printing	114.3	114.2	114.7	3.8	0.0	−0.2	4.6
Shipments (2)							
Printing & Publishing	na	na	na	10.6	4.6	5.2	7.2
Newspapers, Books, Periodicals	na	na	na	4.9	8.9	7.5	7.6
Other Publishing & Printing	na	na	na	16.4	0.6	2.9	6.8
Producer Prices (3)							
Commercial Printing	128.9	130.1	130.3	2.5	1.8	2.6	3.4
Printing Trades Machinery	125.5	126.8	127.3	1.6	1.4	2.4	2.5
Printing Ink	122.2	129.9	129.2	4.9	6.1	3.9	4.5
Paper	130.1	126.1	125.6	−0.6	−0.4	3.9	4.9

(1) Index 1987 = 100, Federal Reserve Board. (2) Billions of current dollars, U.S. Dept. of Commerce. (3) Index 1982 = 100, U.S. Dept. of Labor.
na = data not available for publication
All forecasts by Cahners Economics



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High Profile For Insurance

By Peter Johnston
Special Projects Manager

> Insurance will get more news coverage in '92 than in any year in recent memory.

Here's a prediction: before 1992 is over, the insurance industry is going to get more news coverage than it has in any single year in recent memory, and perhaps in its entire history. For one thing, this is an election year, and the campaign will be largely waged over domestic issues. Two of the most conspicuous of those issues, at least as of press time, are health care costs and the general state of the economy.

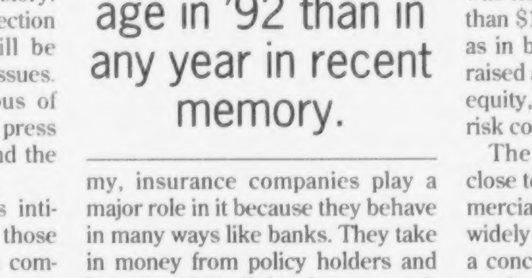
The insurance industry is intimately bound up with both of those issues. Treatment for even a comparatively minor medical emergency can easily involve costs running up to tens of thousands of dollars. Americans who suffer a severe, protracted illness or a more serious injury are looking at bills for not tens, but *hundreds of thousands* of dollars.

Except for a small number of the very rich, no one can pay these bills, of course, which is where insurance comes in. Paying for medical care really means paying insurance premiums; how and by whom that is to be done is being hotly debated.

As to the general economy, insurance companies play a major role in it because they behave in many ways like banks. They take in money from policy holders and hang onto it until they have to pay it out in claims. Meanwhile, they invest it; insurance companies rank among the largest holders of equity in the American economy, just like banks, and savings and loan institutions. (The life insurance industry was holding assets valued at more than $1.5 trillion in 1991.) And, just as in banking, questions are being raised as to the value of some of that equity, such as real estate and high-risk corporate bonds.

The insurance industry buys close to a half-billion dollars of commercial printing every year. It's a widely dispersed industry. There is a concentration of the larger carriers in New England (this month's Regional Update), specifically in and around Hartford, Conn., where many of today's modern insurance practices were developed. While the most common types of insurance company deals with life, health, and catastrophe (fire, marine, and casualty insurance), there are numerous smaller specialties.

Reprints of this installation may be ordered from Cathy Dionne, Cahners Publishing, Reprint Department, 1350 E. Touhy Ave., Des Plaines, Ill., 60018. She can be reached by calling (800) 523-9654 in the U.S.; Canadian readers call (708) 390-2777. ⊟



Anne Gusman

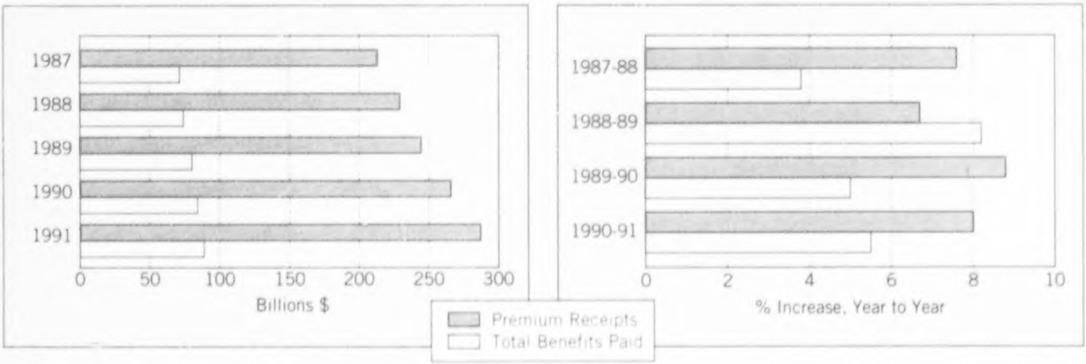
Insurance at a Glance

With over two million employees, insurance is the second-largest industry in its classification (Finance, Insurance, and Real Estate) and one of the top 20 in the U.S. (measured by employment). Service industries tend to be much larger than manufacturing industries; printing, for instance, though one of the larger manufacturing industries in the nation, employs fewer than one million. Insurance is the tenth-largest printing customer to be covered in this series; its annual purchases from printers total $422 million.

Total Establishments: 145,033
Employees: 2,012,419
Total Annual Payroll: $35,602,609,000

Industry Financial Outlook

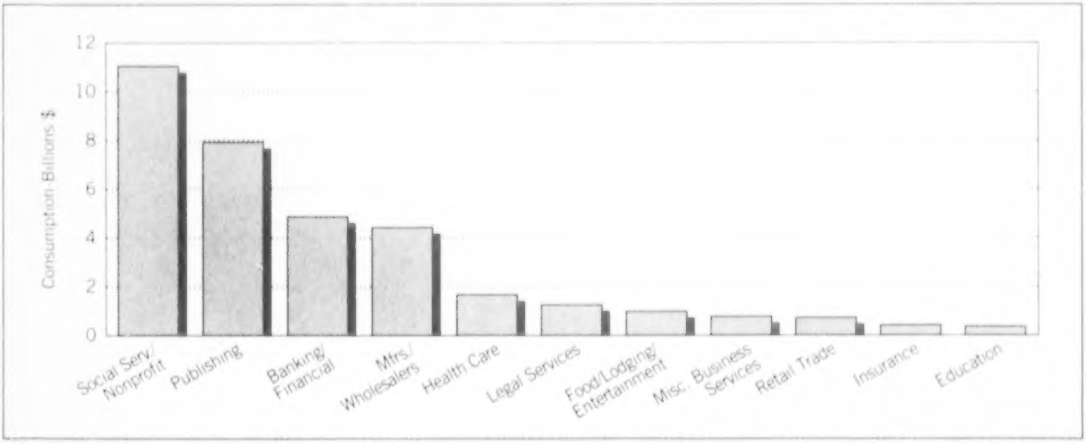
The insurance industry and the Department of Commerce use a number of financial yardsticks to measure the overall performance of the industry. At first glance it appears to be in excellent shape, at least by an admittedly crude measure: income (premium receipts) has been growing at a faster rate than outgo (total benefits paid).

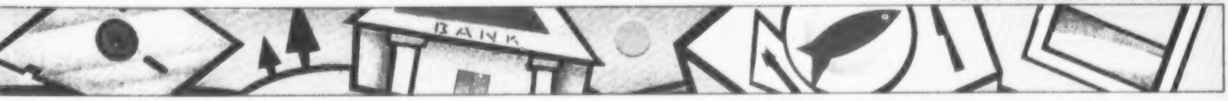


Charts and graphs by Lisa Hilgers

Ranking of the Print Target Markets

Industries to be covered in the Print Target Markets series in 1992 were selected from a DRI/McGraw-Hill listing of the largest purchasers of goods and services from commercial printers. This list was further refined by the editors, primarily by the elimination of industries that are not logical targets for small- to medium-size commercial printers. The resulting list represents more than a third of all business-to-business printing sales.

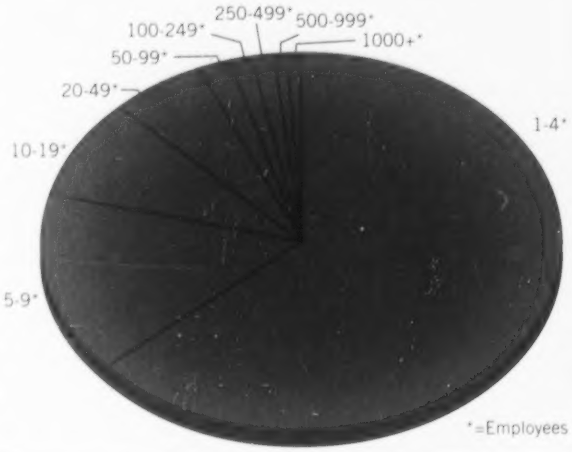




Insurance Industry Sites by Employee Size

Of the more than 100,000 establishments in Standard Industrial Classification Groups 63 and 64—Insurance Carriers, Agents, and Brokers—90% have fewer than 20 employees; 65%, in fact, have fewer than five employees. In terms of total industry employment, however, more than 50% of insurance carrier employees work in establishments with 250 or more employees; 29% work in facilities with 1,000 or more employees.

1-4 Employees	94,570	65.2%
5-9 Employees	23,142	15.9%
10-19 Employees	13,032	8.9%
20-49 Employees	8,702	6.0%
50-99 Employees	2,877	2.0%
100-249 Employees	1,719	1.2%
250-499 Employees	514	0.4%
500-999 Employees	273	0.2%
1000+ Employees	204	0.14%



Industry Structure

Establishments in the insurance industry are divided into two general categories: insurance carriers (SIC group 63), and insurance agents, brokers, and services (SIC group 64). The Department of Commerce maintains separate listings for the following: life insurance, medical and health insurance, accident and health insurance, hospital and medical service plans, fire, marine, and casualty insurance, surety insurance, title insurance, pension, health, and welfare funds, and other ("Insurance carriers, not elsewhere classified"). Agents and brokers are lumped together, regardless of what they provide. They are also grouped together with regard to type of work situation, as compared to insurance carriers (see "Insurance Establishments by Employee Size"). For agents and brokers, 50% of workers are employed in sites with fewer than 20 employees and only 13% in sites with 250 or more.

Of these two categories, agents and brokers have far more establishments than insurance carriers (105,133 vs. 39,900). The carriers being much larger enterprises, however, they have more total employees (1.3 million vs. 686,000). Carriers proportionately consume somewhat more printing than brokers and agents, which typically purchase the same printing products as any small business (stationery, short-run forms, etc.) Note: insurance carriers tend to have extensive in-plant printing operations, decreasing the amount of commercial printing they buy.

Category	Number of Establishments
Insurance Carriers	39,900
Life Insurance	14,445
Medical Service and Health Insurance	2,113
Accident and Health Insurance	1,169
Hospital and Medical Service Plans	937
Fire, Marine, and Casualty Insurance	16,187
Surety Insurance	503
Title Insurance	3,030
Pension, Health, and Welfare Funds	2,622
Other Insurance Carriers	262
Insurance Agents, Brokers, and Service	105,133

Regional Distribution

Region	Insurance Carriers	Agents & Brokers
New England	2,155	5,677
Middle Atlantic	6,185	16,296
East North Central	6,903	18,188
West North Central	2,913	7,675
South Atlantic	6,742	17,767
East South Central	2,514	6,623
West South Central	4,428	11,670
Mountain	2,155	5,677
Pacific	5,905	15,560

Source: Estimate based on U.S. Department of Commerce figures

Key to Regions

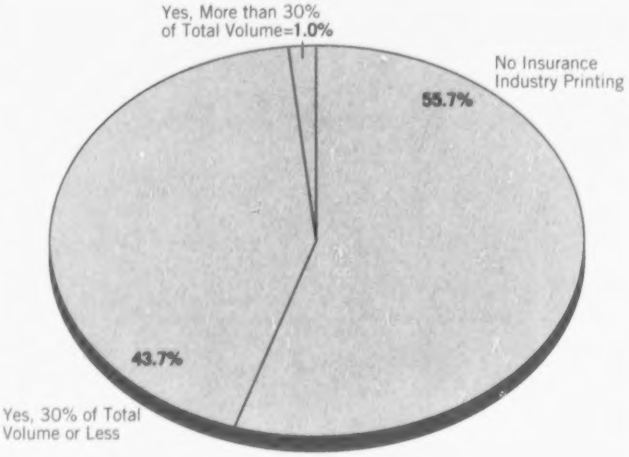
The nine geographic regions, as referred to throughout this survey:

New England (NE): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **Mid-Atlantic (MA):** New Jersey, New York, Pennsylvania. **South Atlantic (SA):** Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia. **East South Central (ESC):** Alabama, Mississippi, Kentucky, Tennessee. **East North Central (ENC):** Illinois, Indiana, Michigan, Ohio, Wisconsin. **West North Central (WNC):** Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. **West South Central (WSC):** Arkansas, Louisiana, Oklahoma, Texas. **Mountain (M):** Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Pacific (P):** Alaska, California, Hawaii, Oregon, Washington.

Does Your Firm Work for this Industry?

To measure the breadth of the insurance industry's impact on commercial printing, small and medium-sized commercial printers across the country were surveyed. Printers to be surveyed were selected on a random (every nth name) basis from the current circulation list of GAM. Nearly 45% of printers responding to the survey reported doing at least some work for the insurance industry.

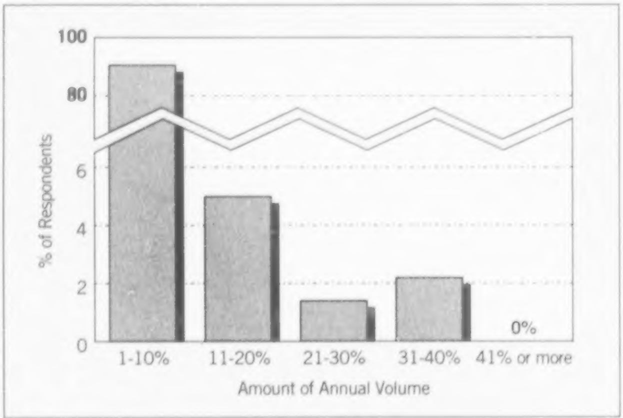
This was expected. As noted earlier, the insurance industry is widely distributed across the U.S. While the carriers themselves tend to be clustered in certain spots, representatives, brokers, and agents can be found virtually every place in the country where people live or do business. Life insurance assets have been growing at a fast pace, 10.2% from 1989 to 1990, and 9.8% 1990-1991. Still, the industry's short-term prospects are somewhat mixed.



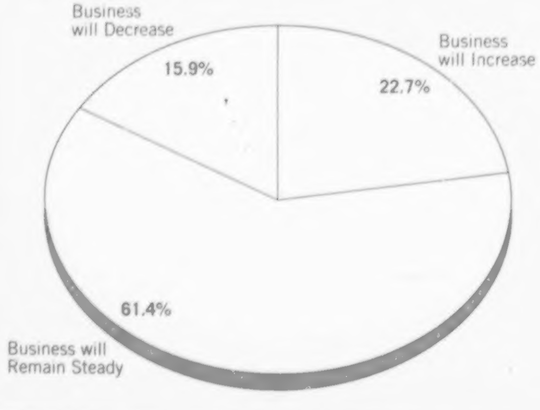
If So, How Much of Your Annual Volume is Insurance Printing?

For most respondents, printing for the insurance industry represents a relatively small portion of total annual sales: over 90% of responding printers derive less than 10% of their business from it. This is fairly typical of small commercial printers, who tend to have a diverse customer base of relatively small accounts. Unlike other industries, there were almost no respondents deriving a major part of their business from insurance, probably because of the industry's propensity for doing its own in-plant printing.

This may change as insurance companies explore "outsourcing," or using commercial vendors to do work traditionally done in-plant. While it's too early to make any definitive statement, there is some evidence that printing, particularly data-intensive mailing jobs, is moving out of the in-plant in the insurance industry.



Will your insurance business rise or fall?



Printer-Supplied Products for Insurance

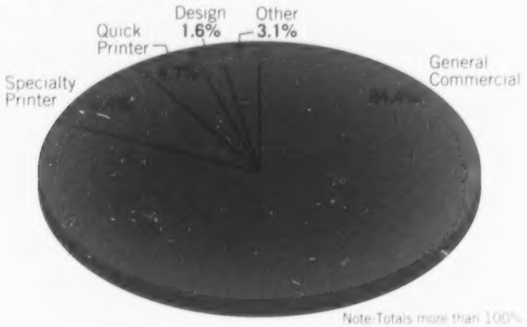
The insurance industry apparently consumes more or less the same types of printing as any other business. It is interesting to note how much business forms printing is done by small commercial firms; this is work that does not appear in industry statistics for business forms printing as a category.

In a business (insurance) that depends heavily on personal contact and customer satisfaction, the other top categories come as no surprise.

Stationery and Business Cards	84.9%
Business Forms	64.7%
Advertising Sheets, Pamphlets, or Brochures	51.8%
Unbound Non-Advertising Material	27.3%
Miscellaneous Non-Printing Services	20.9%
Bound Publications	10.8%

Regional Update/ New England

Type of Company



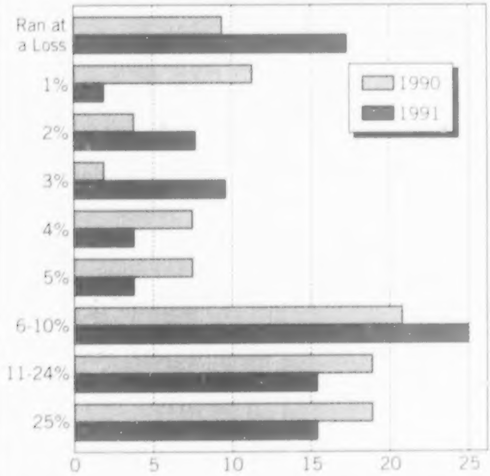
Note: Totals more than 100% due to multiple responses

Profile of Respondents

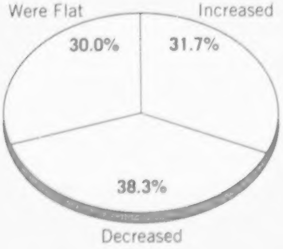
Commercial printers in New England responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. Note that 1991 gross sales were estimated.

Gross Sales in 1991		# of Employees	
Less than $500,000	73.0%	1-4	59.4%
$500,000-749,999	9.5%	5-9	20.3%
$750,000-999,999	6.3%	10-19	18.8%
$1 million-2,499,999	11.1%	20 or more	1.5%

Profit as a Percent of Gross Sales, 1990



How Sales Changed, 1990 to 1991



1989 to 1990

Sales Increased	45.3%
Sales Decreased	28.4%
Sales Were Flat	26.3%

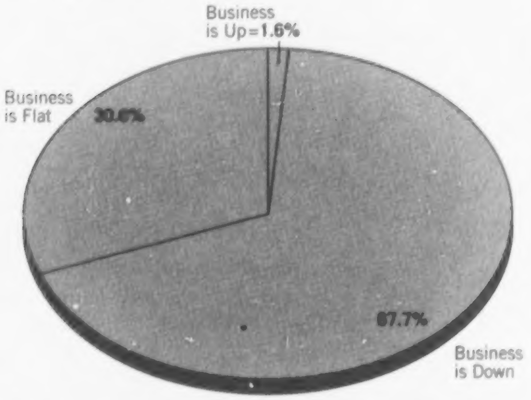
If Sales Increased 1990-1991, How Large Was Increase?

Less than 5%	5.3%
5-10%	52.6%
11-20%	15.8%
21-50%	26.3%
More than 50%	0%

If Sales Decreased 1990-1991, How Large Was Decrease?

Less than 5%	8.7%
5-10%	26.1%
11-20%	34.8%
21-50%	26.1%
More than 50%	4.3%

Perception Index



Comments by Printers

- Excellent opportunities are available for the entrepreneur with some money behind him.
- Unless the economy picks up across the board, business will stay sluggish for 1992.
- I am very discouraged. This is a family business since 1940; I would sell if I could.
- We seem to be holding our own despite cut-throat "quick printers" in the general area.
- Due to high wages and competitiveness, many firms are closing, a plus for us.
- I still believe the Northeast is in a recession. My goal is to stay in business in 1992.
- Presently it's survival of the fittest. Only the mean and lean are in operation today. And there's no fluff in the price of a job.

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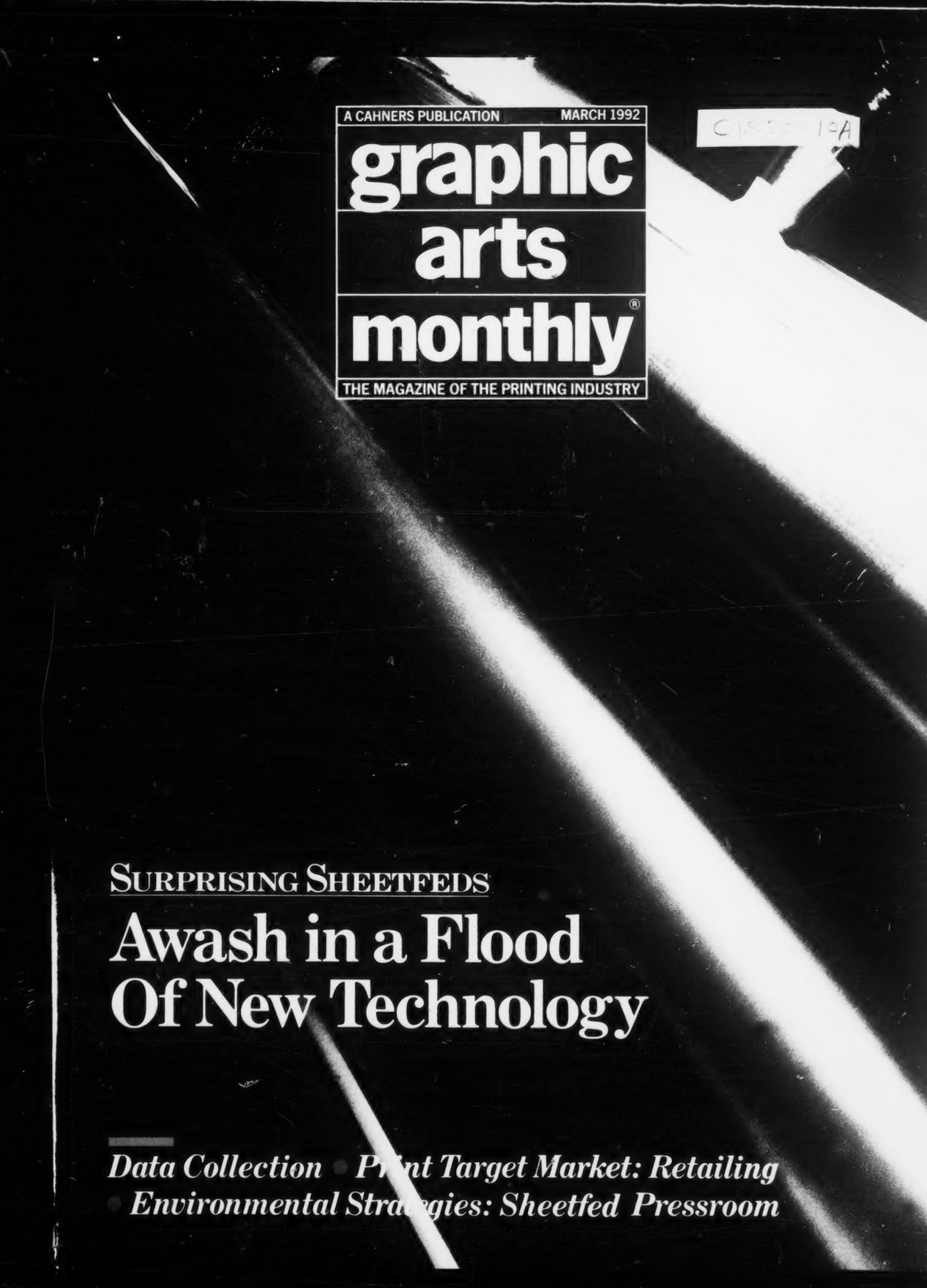

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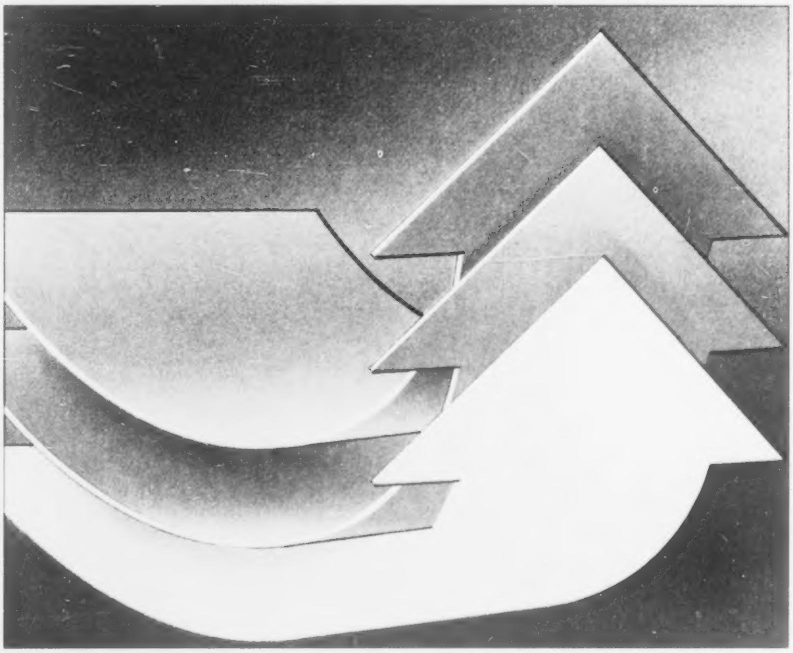
FEATURES



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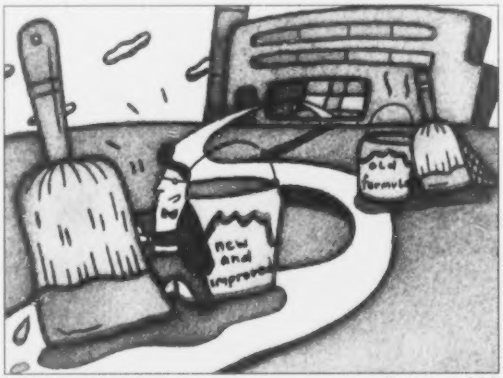

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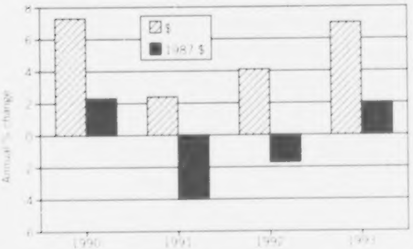
Magazine Industry Growth Sluggish



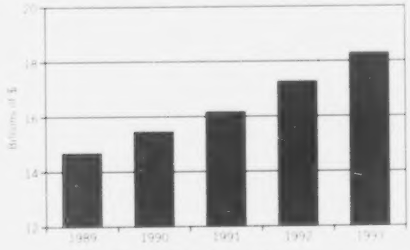
Consumer Spending – Magazines

Source: Cahners Economics

Consumer spending on magazines and newspapers totalled $24.2 billion last year, up 2.4% from the year before. After accounting for price inflation, spending actually dropped 3.9% and is expected to post another decline in 1992. Currently, the magazine industry is also suffering from a slowdown in advertising spending, due to the economic recession and low corporate profits. Despite the recent slowdown, however, magazine advertising should resume growth, as it is generally considered one of the most effective means of reaching the public.

Magazine circulation growth is expected to moderate as the population grows more slowly. Magazine publishers will be keeping their eye on the changing demographics of the nation and will continue to launch new titles aimed at growing niche markets. The *Printing 2000* survey by Printing Industries of America projects magazine industry revenues will rise between 2% and 3% annually throughout the 1990s.

Book Sales Top $16 Billion in '91



Book Publishers' Sales

Source: Assn. of American Publishers

Book publishers' sales grew slowly in 1991, posting a 4.6% annual gain to total over $16 billion. This represents the slowest annual growth in over a decade. Moreover, most of this slight gain is attributable to price inflation; adjusting for price increases puts 1991's growth rate below 1%. The one area which is experiencing the most sluggish sales pattern is textbooks. Tight budgetary situations have prevented public schools from significantly increasing their book collections.

In addition, textbooks sales are adversely affected by shrinking elementary and secondary school enrollments. The book categories which will see strong growth despite the overall slowdown are juvenile and mass market paperbacks. Projections call for publishers' book sales to grow a modest 6.8% in 1992, to over $17 billion. Slower inflation rates place real sales growth at 2.9%. In 1993, sales are expected to increase 5.9%.

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In conjunction with the changes to Gross Domestic Product, the Commerce Department has revised and rebased to 1987 all consumer expenditure data. As a result, this month's database numbers will not correspond to previous numbers reported. Despite these changes, the trends in consumer spending on reading materials remains unchanged. Consumers continue to buy books and magazines, although at a slightly slower pace than the industry is used to. As low-ticket items, books and magazines are little affected by changes in income patterns.

PUBLISHING END MARKET INDICATORS

				Annual Percent Change			
Consumer Spending (1)	**1990**	**1991**	**1992**	**90**	**91**	**92**	**93**
Books	17.58	18.68	19.80	11.0	6.3	6.0	7.1
Mags. & News	23.66	24.23	25.23	7.3	2.4	4.1	7.0
Consumer Spending (2)							
Books	15.39	15.73	15.92	4.7	2.2	1.2	2.8
Mags. & News	20.77	19.95	19.63	2.3	-3.9	-1.7	2.0
Publishers' Sales (3)							
Total	15.44	16.15	17.25	5.3	4.6	6.8	5.9
Adult Trade	2.87	3.06	3.24	5.5	6.6	5.8	8.8
Juvenile Trade	1.02	1.13	1.24	13.3	10.7	9.8	7.8
Mass Market	1.15	1.20	1.31	4.9	4.9	8.6	6.7
Professional	2.77	2.82	2.99	6.7	1.8	6.0	6.6
Elhi Texts	2.03	2.10	2.21	2.1	3.8	4.9	5.5
College Texts	1.99	2.01	2.12	8.1	1.1	5.4	5.9

(1) Billions of Dollars. Data Source: U.S. Dept. of Commerce. (2) Billions of 1987 Dollars. Data Source: U.S. Dept. of Commerce
(3) Billions of Dollars. Data Source: Association of American Publishers
All forecasts: Cahners Economics

PRINT TARGET MARKETS

graphic arts monthly

Retailing In Transition

If you are an ordinary citizen—someone, that is, who holds neither public office nor the right to exercise 10-year stock options—you probably feel a little like Alice being hectored by the Queen of Hearts when you read the business news these days.

The charges boil down to two key accusations:

1. Consumers are a bunch of spendthrifts who don't save enough. If they'd only quit running up their charge cards to buy useless geegaws and put the money in the bank instead, things wouldn't be so awful.
2. Consumers are a bunch of nervous nellies with no confidence who are sitting on their wallets and won't spend any money. If they'd only recover their confidence, run out and buy lots of expensive objects, things wouldn't be so bad.

Obviously, both these things can't be true at the same time. The real question is, why does the consumer get so much blame? Because the consumer economy represents around two-thirds of the economic activity in the United States, that's why. And the consumer economy is comparatively volatile; it can change quicker than the heavy manufacturing sectors. That's why consumer activity is so obsessively studied by economists and politicians.

Retailing is reported to be the third-largest employer in the U.S.

The primary point of connection between consumers and the consumed is retail trade. It's a vast industry; estimated total retail sales for 1991 were $1.9 trillion. It is the third-largest employer (after hotels and food manufacturing) in the U.S., with a work force of nearly 13 million (not counting eating and drinking establishments, which will be covered later in this series).

Retail trade is a major consumer of printing. The figure given here, $725 million, represents only services purchased directly from commercial printers, the key focus of these articles. It does not include packaging, periodical advertising, catalog printing, or other major but indirect contributions the retail trade makes to our industry.

Anne Gusman

This article is the third in a year-long series. In addition to the Print Target Market profile, each article contains news on the fortunes of the commercial printing industry in one geographic region. Subject of this month's Regional Update: the East North Central (Illinois, Wisconsin, Michigan, Ohio, and Indiana).

Reprints of this article may be ordered from Cathy Dionne, Cahners Publishing, 1350 E. Touhy Ave., Des Plaines, IL 60018, or by calling (800) 523-9654 in the U.S.; in Canada, call (708) 390-2777. ▤

By Peter Johnston
Special Projects Manager

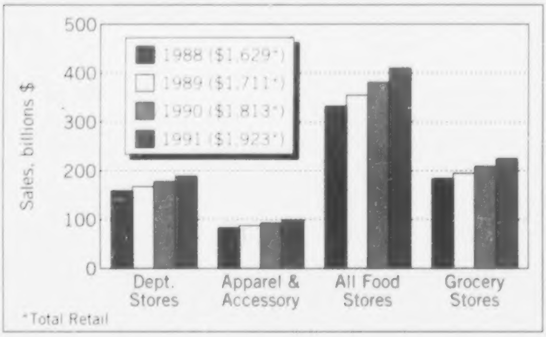
Retail at a Glance

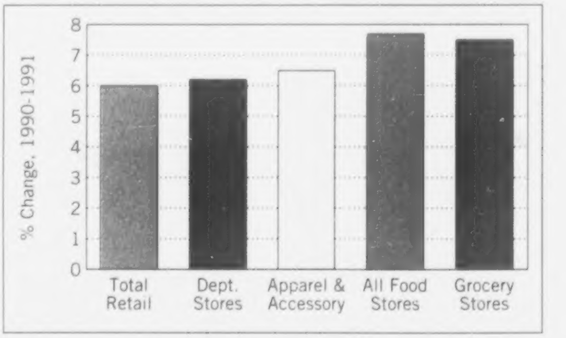
Both in terms of employment (more than 12 million, not including eating and drinking establishments) and sales volume (nearly $2 trillion, or 20 times the size of printing), retail sales is one of the largest sectors of the American economy. Of all the industries studied in this series, it is the one with which the most people have the most frequent contact, which accounts for the astronomical number of employees and establishments. However, retail trade is only, at $725 million, the ninth-largest commercial printing customer.

Total Establishments: 1,094,428
Employees: 12,704,071
Total Annual Payroll: $168,029,622,000

Industry Financial Outlook

The retail industry seems to be healthy. Over the past three years it has grown about 6% per year, putting it well ahead of the GNP. There have been some widely publicized catastrophes among major retailers in recent years, among them Federated Department Stores, Revco, and R.H. Macy & Company. But these appear to be the result of misconceived leveraged buyouts rather than any fundamental problem with retailing.

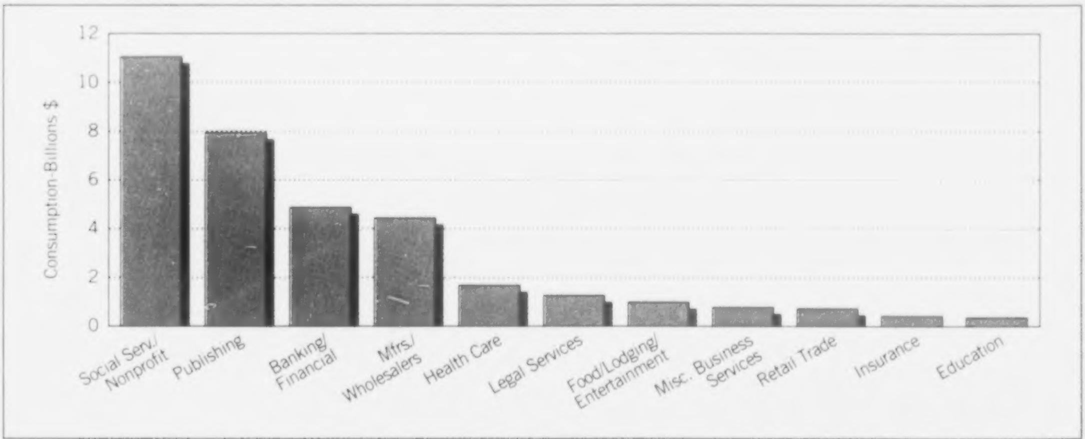




Charts and graphs by Annabelle Carter

Ranking of the Print Target Markets

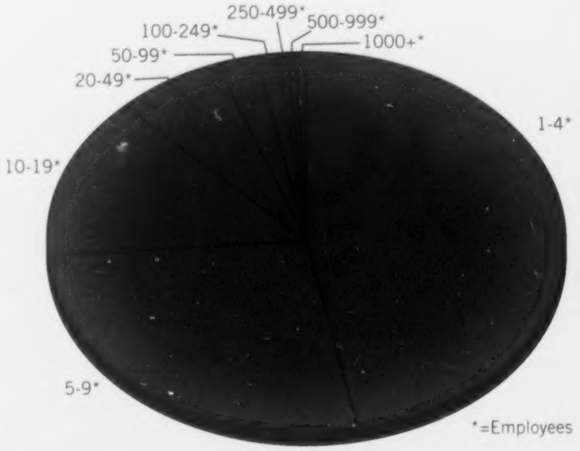
Industries to be covered in the Print Target Markets series in 1992 were selected from a DRI/McGraw-Hill listing of the largest purchasers of goods and services from commercial printers. This list was further refined by the editors, primarily by the elimination of industries that are not logical targets for small- to medium-size commercial printers. The resulting list represents more than a third of all business-to-business printing sales.



Retail Trade Establishments by Employee Size

Retail sales is the quintessential small-business industry. Almost 90% of retail establishments have fewer than 20 employees, and nearly half have fewer than five. At the big end, there are 128 establishments with 1,000 or more employees. (SIC 2700, Printing & Publishing, which is microscopic compared to total retail sales, has 127 establishments with 1,000 or more employees.) Even today, the Mom-and-Pop store is the rule, not the exception.

1-4 Employees	522,534	47.7%
5-9 Employees	299,238	27.3%
10-19 Employees	154,422	14.1%
20-49 Employees	72,766	6.6%
50-99 Employees	27,152	2.5%
100-249 Employees	15,417	1.4%
250-499 Employees	2,209	0.2%
500-999 Employees	562	0.05%
1000+ Employees	128	0.012%



Industry Structure

The first two industries in this series, health care and insurance, are structured like hierarchies: big institutions at the top (hospitals or major insurance carriers) and a host of specialists (dentists, marine casualty brokers) at the bottom. Retail trade, by contrast, is really a confederation of loosely related industries held together by the fact that they involve the intersection of a citizen and a cash register. The categories given in the chart are further broken down into lumberyards, paint stores, hardware stores, nurseries, mobile homes dealers, department stores, variety stores, grocery stores, butcher shops and fish markets, fruit stands, candy stores, dairy products stores, bakeries, car dealers, auto supply stores, boat dealers, RV dealers, motorcycle dealers, clothing stores (six different kinds), shoe stores, furniture stores, rug & carpet stores, appliance dealers, radio and TV stores, computer stores, record stores, music stores, drugstores, liquor stores, bookstores, sporting goods stores, jewelry stores, camera stores, hobby shops, gift shops, catalog houses, fuel dealers, florists, news stands, tobacco stands, optical shops, and miscellaneous. Some are big and some are not.

Category	Number of Establishments
Building Materials and Garden Supplies	71,422
General Merchandise Stores	35,054
Food Stores	183,226
Automobile Dealers and Service Stations	208,343
Apparel and Accessory Stores	148,310
Furniture and Home Furnishings Stores	104,990
Miscellaneous Retail Establishments	326,645
Nonstore Retailers	21,276

Regional Distribution–Retail Sales and Sales Growth

Region	Sales, 1987 ($ million)	Sales, 1982 ($ million)	% Change
United States	$1,494,112	$1,039,029	43.7%
New England	98,947	60,693	63.0%
Middle Atlantic	229,250	155,186	47.7%
East North Central	249,202	176,787	40.9%
West North Central	101,945	75,969	34.2%
South Atlantic	274,480	172,293	59.3%
East South Central	80,143	55,331	44.8%
West South Central	146,614	123,987	18.2%
Mountain	77,898	57,890	34.6%
Pacific	235,633	160,892	46.4%

Source: Estimate based on U.S. Department of Commerce figures

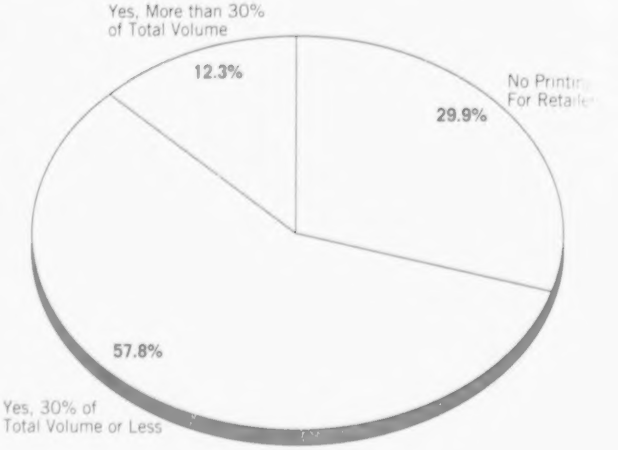
Key to Regions

The nine geographic regions, as referred to throughout this survey: **New England (NE)**: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **Mid-Atlantic (MA)**: New Jersey, New York, Pennsylvania. **South Atlantic (SA)**: Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia. **East South Central (ESC)**: Alabama, Mississippi, Kentucky, Tennessee. **East North Central (ENC)**: Illinois, Indiana, Michigan, Ohio, Wisconsin. **West North Central (WNC)**: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. **West South Central (WSC)**: Arkansas, Louisiana, Oklahoma, Texas. **Mountain (M)**: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Pacific (P)**: Alaska, California, Hawaii, Oregon, Washington.

Does Your Firm Work for this Industry?

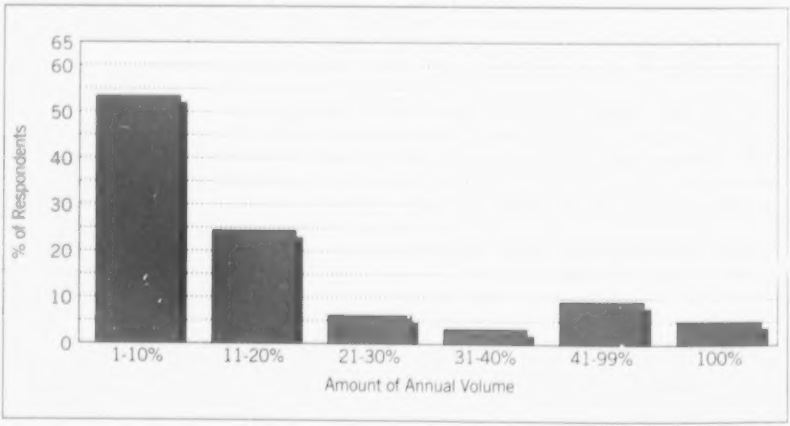
To measure the breadth of retail trade's impact on commercial printing, small and medium-sized commercial printers across the country were surveyed for this article. Printers to be surveyed were selected on a random (every nth name) basis from the current circulation list of Graphic Arts Monthly. A total of 70% of printers responding to the survey reported doing at least some work for the retail industry.

This is the largest representation of any industry so far studied, and it points to the ubiquity of retailers in the American (or any other) economy. Indeed, the only thing surprising about the results of the survey was how many small commercial printers do not do at least some work for retailers.

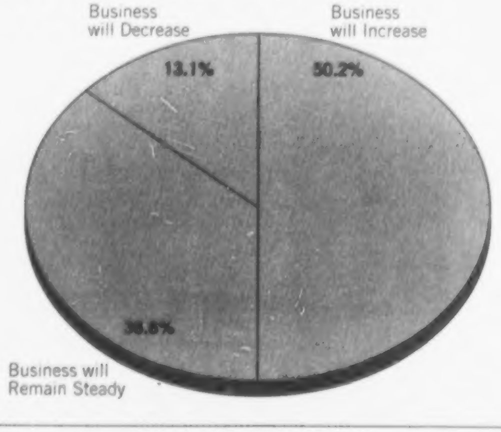


If So, How Much of Your Annual Volume is for Retailers?

These results are consistent with the general pattern of smaller commercial printers as broad- spectrum job shops doing a large number of small jobs for a variety of customers. Only a small minority of such firms have a substantial concentration of their customer base in any one industry; they are generalists, not specialists. Nonetheless, over 17% of those printers surveyed reported that it accounts for more than 30% of their total annual volume, and some of them (5%) do all their business with retailers.



Will your retail business rise or fall?



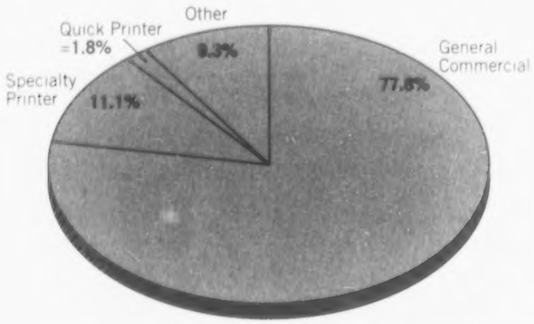
Printer-Supplied Products for Retailing

Like most industries, the most common printed products retailers consume are business cards and stationery, closely followed by business forms, though computerized cash registers are reducing the once massive volume of printed receipts. Advertising, frequently in the form of one-page flyers, is another major part of the mix.

Stationery and Business Cards	83.9%
Business Forms	79.4%
Advertising Sheets, Pamphlets, or Brochures	77.1%
Unbound Non-Advertising Material	45.4%
Miscellaneous Non-Printing Services	38.1%
Bound Publications	25.2%

Regional Update/ East North Central

Type of Company



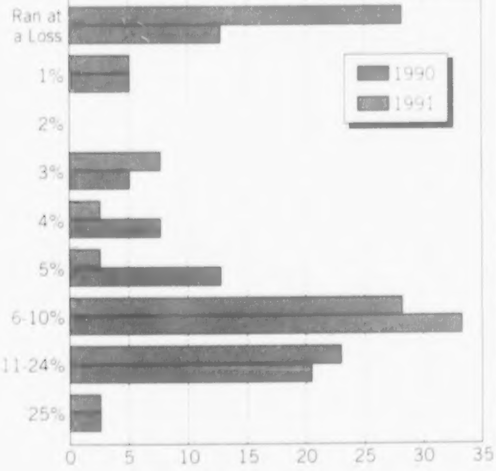
Profile of Respondents

Commercial printers in East North Central region responding to a recent survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. Note that 1991 gross sales were estimated.

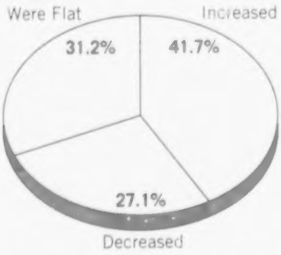
Gross Sales in 1991	
Less than $500,000	75.0%
$500,000-749,999	12.5%
$750,000-999,999	6.3%
$1 million-2,499,999	6.3%

# of Employees	
1-4	52%
5-9	24%
10-19	22%
20 or more	2%

Profit as a Percent of Gross Sales, 1990



How Sales Changed, 1990 to 1991

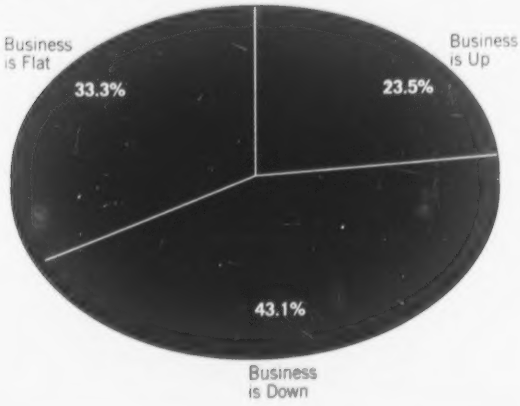


1989 to 1990	
Sales Increased	41.7%
Sales Decreased	27.1%
Sales Were Flat	31.2%

If Sales Increased 1990-1991, How Large Was Increase?	
Less than 5%	15.8%
5-10%	47.4%
11-20%	15.8%
21-50%	10.5%
More than 50%	5.3%

If Sales Decreased 1990-1991, How Large Was Decrease?	
Less than 5%	7.7%
5-10%	46.3%
11-20%	23.0%
21-50%	23.0%
More than 50%	0%

Perception Index



Comments by Printers

- I opened my shop in February 1990 and am finding all the work I can handle. I am planning an expansion of both employees and facilities.
- There seems to be an over-saturated market this year, which has had an influence on prices and a dilution of market share. We had to cut our work force.
- Busy one month, not the next; hard to track anything any more.
- Growth was stopped by current recession. If things get worse, decline is inevitable.
- Desktop publishing has taken some of the short-run copies from quick printers. Business has declined because of this, but we are now starting to stabilize again.

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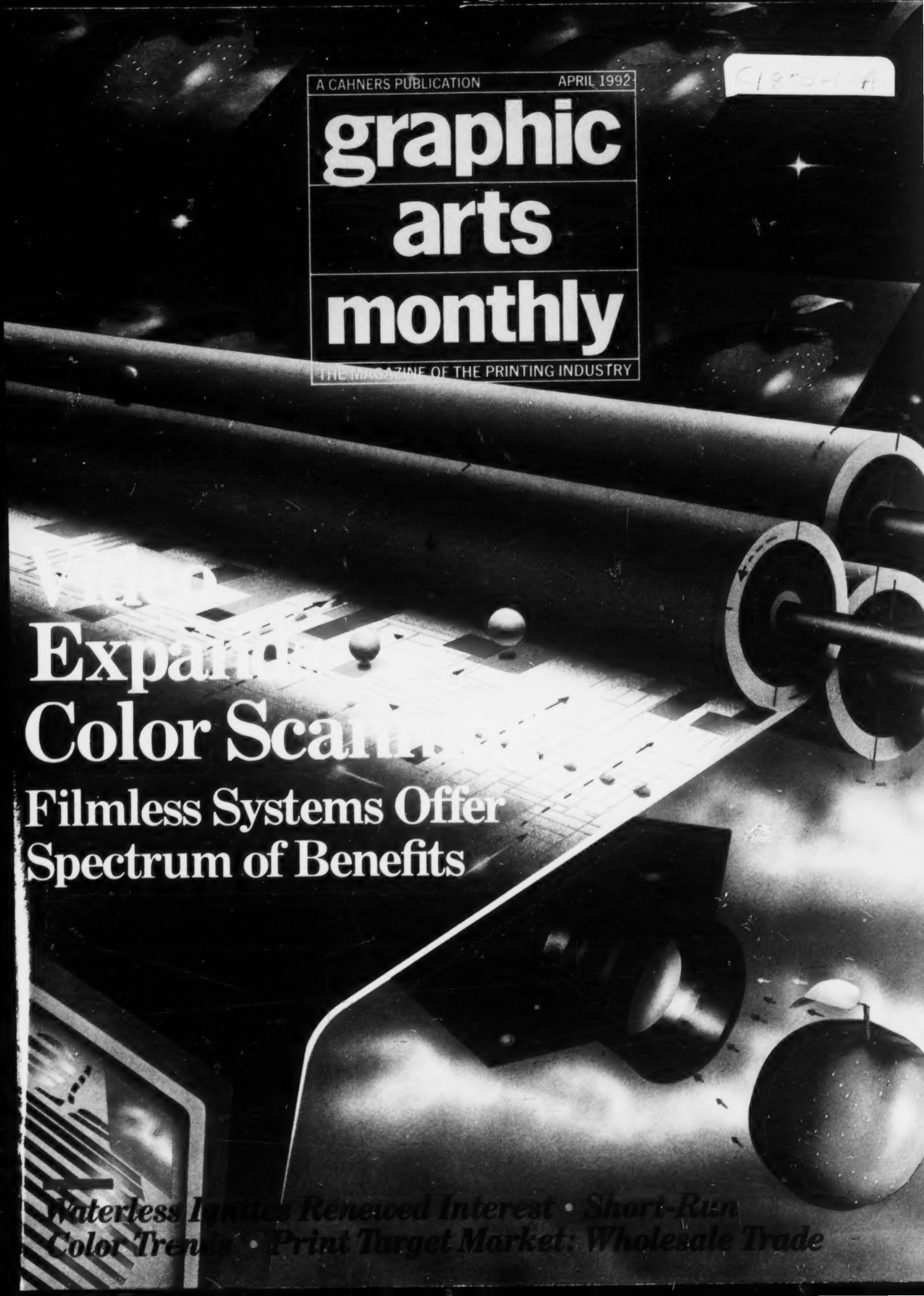

Video Expands Color Scanning

Filmless Systems Offer Spectrum of Benefits

Waterless Ignites Renewed Interest • Short-Run Color Trends • Print Target Market: Wholesale Trade

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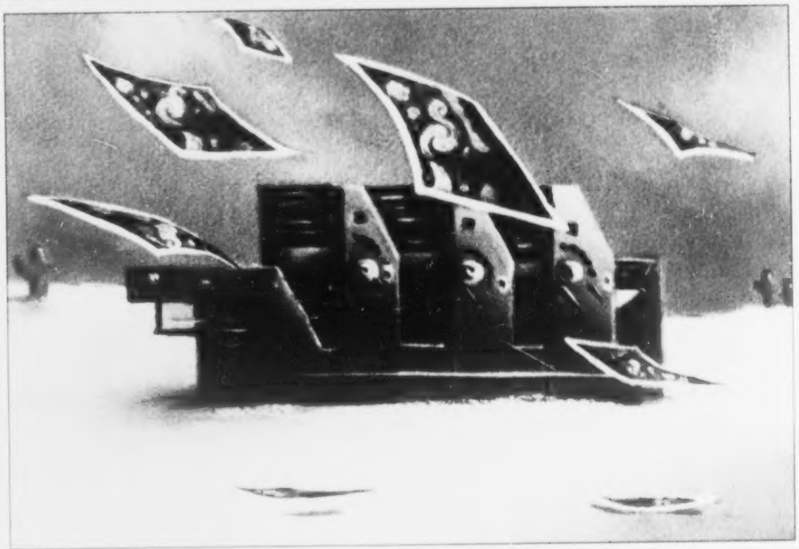

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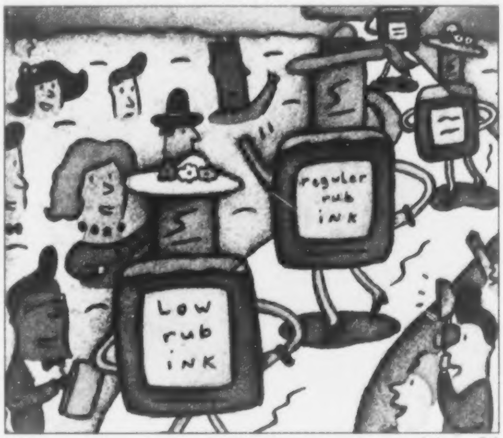

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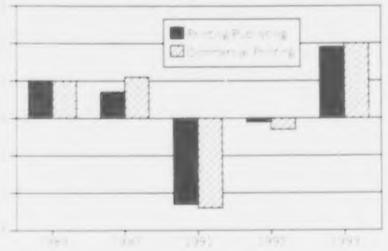
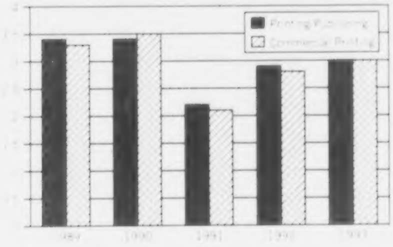
Production Jobs Lead Loss in '91



Employment
annual % change
Source: U.S. Department of Labor Forecast: Cahners Economics

Employment in the printing and publishing industry continues to drop. In January 1992, employment stood at 1.52 million workers, down from 1.56 million a year ago. The loss in the number of production jobs has been more severe; production accounted for nearly 60% of the jobs lost in the past 12 months. The worst does appear to be over, as the rate of decline has slowed. Employment will continue to slide through mid-1992 before improving in the last half of the year. The commercial printing sector, which typically fares better than the rest of the industry, has had a worse showing during the current recession. Commercial printing employment fell 2.4% last year (compared to 2.3% for the industry as a whole) and is headed for a slight 0.3% decline in 1992 (compared to -0.1% for the industry). Rather, the sectors which have done the best over the past year are periodicals and book publishing.

Hourly Wages, Job Time Down in '91



Average Hourly Wages
annual % change
Source: U.S. Department of Labor Forecast: Cahners Economics

Just as industry output and employment have declined, the growth in average hourly wages paid to production workers has slowed. Printing and publishing wages grew only 2.2% in 1991 to end the year at $11.70 per hour. The average number of weekly hours worked has also decreased, signalling cutbacks in production schedules. Once there are some signs of a recovery within the industry, wages will certainly jump back up. In order for the industry to continue attracting skilled labor, it will need to provide incentives in the form of compensation. Cahners Economics projects wage growth to be 2.9% in 1992 and 3% in 1993. Similar growth rates are expected for the commercial printing sector, which pays higher hourly wages than the rest of the industry. Commercial printing wages stood at $11.93 per hour at the end of last year, only 2.1% higher than the year before. In 1992, wages will grow 2.8%, followed by 3% growth in 1993.

The printing and publishing productivity index rose to 105.21 (1987-100) in January 1992, up from 100.98 in January 1991. The recent substantial gains in our industry productivity index are the result of the inputs decreasing faster than the outputs. In other words, the total number of production labor hours worked has declined more, and faster, than the actual output. Labor productivity increased 4.2% last year. Slower gains are projected for the next two years, as employment and hours worked rise faster than output.

SUPPLY INDICATORS

				Annual Percent Change			
Employment (1)	**Dec 90**	**Nov 91**	**Dec 91**	**1990**	**1991**	**1992**	**1993**
Printing & Publishing	1573.0	1530.2	1534.5	0.7	-2.3	-0.1	1.8
Commercial Printing	551.9	539.7	540.0	1.1	-2.4	-0.3	2.0
Productivity (2)							
Printing & Publishing	103.3	111.5	107.2	[illegible]	4.2	3.2	1.7
Average Hourly Earnings (3)							
Printing & Publishing	11.41	11.62	11.70	3.4	2.2	2.9	3.0
Commercial Printing	11.71	11.84	11.93	3.9	2.1	2.8	3.2
Graphic Arts Machinery (4)	**Q3/90**	**Q2/91**	**Q3/91**	**1990**	**1991**	**1992**	**1993**
New Orders	115.6	176.3	132.6	-14.3	-5.4	7.5	1.2
Shipments	137.7	121.6	116.2	-4.2	-15.5	-3.6	9.5
Graphic Arts Supplies (4)							
Shipments	152.6	154.1	151.4	3.1	-1.2	2.1	3.3

(1) Thousands of employees, U.S. Dept. of Labor (2) Index [illegible] (3) [illegible] U.S. Dept. of Labor (4) Index [illegible] National Printing Equipment and Supply Association. All forecasts by Cahners Economics.

Waterless Ignites Renewed Interest

Consistent, fine-screen work is the main appeal of a printing system now gaining a toehold in the U.S.

By Lisa Cross
Associate Editor

For years, press operators have struggled to maintain critical ink and water balance. Now one of the greatest variables, water, can be removed.

Offset printing without the use of fountain solution is not a new idea, but certainly one whose time has come. Initially developed by 3M in the late '60s and marketed under the product name Driography, the project was scrapped because of technical difficulties. 3M sold its patents for positive-working plates to Toray Industries of Japan in 1972; Toray later purchased the patents for negative plates.

The product concept was reintroduced to U.S. printers in 1985 with the development of a waterless negative-working plate. At present, Toray officials report there are roughly 38 waterless printing installations in this country, concentrated in the high-end commercial sheetfed market (60%), followed by packaging (30%), and fine arts reproduction (10%).

In Japan, acceptance is much higher; 15% of all presses there reportedly run waterless, and some 30% of all new sheetfeds come without dampeners.

The next target area for waterless is web offset, but a few technical difficulties must be solved first. Toray hopes to have a product for the web market within eight months.

For some printers, merely eliminating the biggest mystery of the printing process is enough, but there are other benefits to waterless printing. The main advantage described by both printers and systems suppliers is the ability to print consistent, high-quality work, while both increasing operating efficiency and decreasing waste.

"Waterless printing offers better print contrast and detail in your shadow area, less dot gain, and the ability to print at high resolutions, while increasing productivity," affirms Stuart Gritz, vice president, Gritz-Ritter Graphics, Boulder, Colo.

"Our salespeople can sell a higher-quality project, and we can save money in production. Color changes are less trouble, you can run higher ink densities, and both makeready time and waste decreased," he adds.

Gritz-Ritter has been printing without water for a year and a half, since it purchased an Akiyama six-color sheetfed.

Before investing in waterless printing, Gritz visited Japan. "In Japan the biggest reason for running waterless is productivity. They [Japanese printers] discovered that a less experienced press operator could produce high-quality work."

Training time in Japan for operating a four-color waterless press is from 60 to 90 days, according to representatives for Polychrome Corporation, Fort Lee, N.J., a Toray plate distributor. Additionally, in timed productivity tests, job changeover took roughly 14 minutes.

Some printers may gain such benefits, but experienced users point out that U.S. and Japanese printers operate much differently. Another American printer, who made a point of visiting Japan before opting for waterless, reports, "In the plants I saw, they didn't have press checks, they printed primarily four-color work, they printed jobs of adequate quality, and the production runs were long."

Plainly, not all system users agree on the ability of waterless to improve productivity.

"I can tell you emphatically that in the high-end market no money is saved in terms of time and production running waterless over water. The advantage is that you turn out a superior product on a more consistent basis," observes Richard Stein, president of National Printing & Packaging Corp., Denver, the first U.S. printer to run waterless.

The company began printing waterless when it purchased a five-color Komori press more than two years ago. Some of the jobs run waterless on the press have been produced at 300- to 500-line screens. "A great number of efficiencies gained from waterless printing are offset by higher costs," Stein cautions.

Costs associated with start-up and process materials are major barriers. The waterless system recommended by Toray includes three components: the waterless plate, specialized inks, and a temperature control system on press. Printers surveyed report the plate material costs 30% to 50% more than conventional plates. The waterless plate is composed of an aluminum base coated with a photopolymer layer, then covered with a silicone rubber layer.

"The silicone rubber is the working principle of the waterless plate. It is the ink-repelling silicone that takes the place of the water in keeping ink off the nonimage surface of the plate," explains John O'Rourke, product manager for Toray Waterless Plates, New York.

"The plate actually has a relief or intaglio surface," he adds. "Since the photopolymer has a slight etch to it, more ink can be carried on the waterless plate than with a conventional plate. Also, dot gain is minimized."

The plate is exposed by conventional UV light in a standard vacuum frame, then developed in a special processor. The cost of Toray's 40" plate processor is about $30,000.

Since the waterless plate is designed to resist fluid from a specific viscosity, a specialized ink is required. Waterless inks typically are higher in viscosity and stiffer in body.

"Special resins are used in the inks to attain certain viscosity levels within a very narrow temperature range," reports Dick Drong, marketing manager—sheetfed inks, General Printing Ink Division, Sun Chemical, Northlake, Ill. Depending on the manufacturer, waterless inks can be priced competitively with conventional inks or priced at a premium.

Sun Chemical imports waterless sheetfed inks from Japan, but it is developing domestic production, which should ease pricing. "We're forecasting that our waterless sheetfed offset inks will be 30% to 35% higher than conventional inks," says Drong.

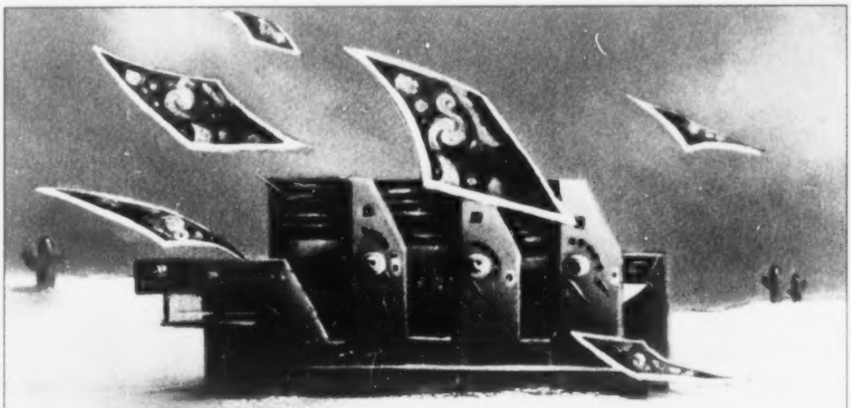
Temperature control is the third major component in waterless printing.

In conventional offset, the dampening system cools the press as it supplies fountain solution to the plate cylinder. Without this cooling effect, the printing rollers run hotter. In addition, the waterless inks' higher viscosity and body would create even more friction in the roller train. These temperature increases cause ink viscosity to fall below the working parameters of the waterless plate, with the result that nonimage areas can no longer resist the ink.

Thus, some type of on-press temperature control system is recommended by the plate manufacturer. The equipment can be installed on existing presses.

In essence, ink/water balance has been replaced with ink/temperature balance.

The temperature control system borrows certain technology from the web industry. Chilled water is piped through vibrator rollers on the press. The press itself is not refrigerated; rather, coolant is supplied through the rollers to carry away the generated heat. The system is similar to the chill rolls used in web offset to set the plasticized inks after their solvents have been


Karen Stolper

Waterless printing is not an arid environment for creativity; it can produce works of excellent detail and quality.

driven off in the dryer.

In addition, if rollers or inks get too cold, warm water is circulated through the vibrator rollers.

"We maintain a very narrow window for temperature on the roller train to get the ink to perform at its best," explains Fred Valentini, vice president of Tri Service, Inc., a supplier of temperature control systems. The Melrose Park, Ill.-based company has provided such to the web industry for 15 years.

The cost to convert a press depends on the press size. Valentini reports that converting a typical six-unit 40" press with a multi-zone system—in which each press unit is controlled individually—will cost between $100,000 and $120,000. The conversion process requires replacing rollers, which means five to seven days of press downtime. All other work on the press is completed while the press is running, during makereadies or shift changes, or at night.

Tri Service has been converting sheetfed presses for waterless printing for 18 months. Thus far, it has completed 16 conversions and has about six more in progress. Valentini reports that most sales have been to press manufacturers.

Press builders offer waterless as an option or are developing systems, including Akiyama, Heidelberg, Komori, MAN Roland, Mitsubishi, and Shinohara Tech. Most press designs allow for switching between conventional and waterless printing.

Although Toray recommends the three components for optimum performance, some printers have opted to bypass the cooling system and focus efforts on finding an additive that will extend the viscosity of the ink.

Toray does not encourage that approach, as the method was tried in Japan for eight years without success. Still, a Toray spokesman "hopes printers who choose this method succeed."

As O'Rourke explains, "We're not in the business of selling temperature control systems. What we are trying to do is get printers on systems for waterless printing, which we know work."

Although printers using the waterless system sing its praises, it is not without disadvantages. For one, the plate is more sensitive than a conventional plate. "The plates scratch easier, so you have to be careful in storing and mounting," says Stein. "If you scratch the coating it prints."

Printers also reported difficulty in matching proofs:

- "There's nobody I'm aware of who can consistently and accurately reproduce a proof at finer screens. You're more consistent on press than you are on proof," observes John Trohatos, president, Central Printing, Dayton, Ohio.
- "There are pluses and minuses: dot gain is lower, but trap is higher," notes Gritz.
- "Proofing systems still don't quite match what you get on press. They are getting better, but they're not there yet," adds Stein.

Despite these drawbacks, printers using the waterless system apparently are content with its performance. In fact, officia at Litho Specialties in St. Paul e vision that one day all of the cor pany's printing will be witho water. The company even d signed and built its own on-pre cooling system.

The vote is still out as whether the waterless process for all printing market segment

Believes Stein, "It fits speci markets [high-end sheetfe packaging, and label printing so if you're not producing f those markets I don't see tremendous advantage. Pre technology, inks, and chemist have been refined to such a poi that fabulous work can be prir ed with water. But waterle does allow me to print 300- ar 500-line screens with lots of de sity, contrast, and consistenc which is tough to do with water

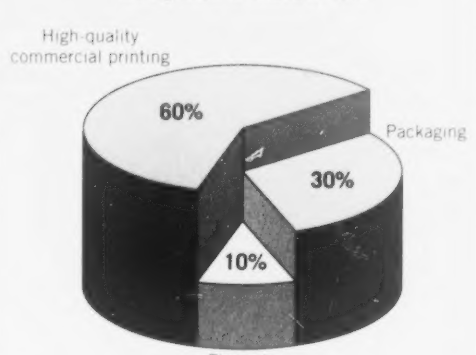
As for Toray's vision, not O'Rourke, "The niche mark initially for this product is pren um-quality sheetfed, but we' expecting it will become an e eryday process eventually, opposed to a premium process.

The next generation of shee fed presses may ease the burd for printers wanting to expe ment with waterless. Futu presses predicted to run 15,000 to 18,000 impressions p hour will probably con equipped with water-cooled o cillators to compensate for i creased operating temperatur There are now prototypes in th field running at 17,000 iph.

"If a press is factory-equipp with the rollers, installing th temperature control system simple," explains Tri Service Valentini.

To print with or without water, the answers lie in careful anal sis of your printing operation costs, production efficiencie and markets served, plus you expectation of future deve opments in printing proces equipment and materials.

In the U.S., waterless printing is gaining popularity. At present, the process is being used in sheetfed for:



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Wholesale Sales Shrink

By Peter Johnston
Special Projects Manager

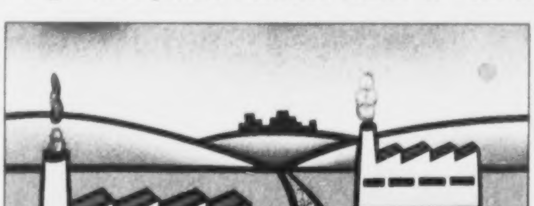
The title of this month's print target market report is a slight misnomer. We're talking about wholesale trade, which the Department of Commerce (DOC) defines as establishments primarily engaged in selling merchandise to retailers, to large-scale end-users (such as institutions, industries, or contractors), or to other wholesalers. It also includes people or establishments acting as brokers or agents in buying merchandise for or selling it to the above.

We include the term "manufacturing" for two reasons: many wholesale establishments are owned and maintained by the marketing arms of manufacturers, and it's at this level that these companies are most active as consumers of commercial printing services, since the wholesaling operation markets goods both to retailers and the general public.

For simplicity's sake, we'll refer to all of the above as "wholesaling". The category is further divided by DOC into durable goods (like cars and refrigerators) and nondurable goods (paper, clothing, food, etc.).

The retail trade (see last month) rises and falls with disposable income and "consumer confidence". The numbers are very different for wholesaling. Retail sales 1990-1991 showed growth of around 6%, which, even after inflation is factored out, means that there actually was some growth. Over the same period, wholesale volume in consumer durables shrank 2%, as it did the year before. Food and beverages were up 1.3%, and paper products a comparatively robust 2.2%.

From 1990-1991, volume in almost all consumer durables shrank.



Anne Gusman

That's the good news. The most recent figures for profitability in this sector are for the third quarter of 1991; compared to the same period a year earlier, profits in durable goods were off *82.9%*. Nondurable profits fell 16.3% during the same period, dragged down mostly by the oil business; petroleum profits were off by 68.3%.

Yet whatever difficulties these firms are having, they still need to market their goods and run their businesses, which means they will still need the services of printing vendors. Wholesale trade accounts for almost $4.5 billion in commercial printing sales, placing it fourth on our list of top markets.

Wholesaling is clustered near major coastal population centers and Chicago (subject of this month's Regional Update), plus the more prosperous parts of the Sun Belt.

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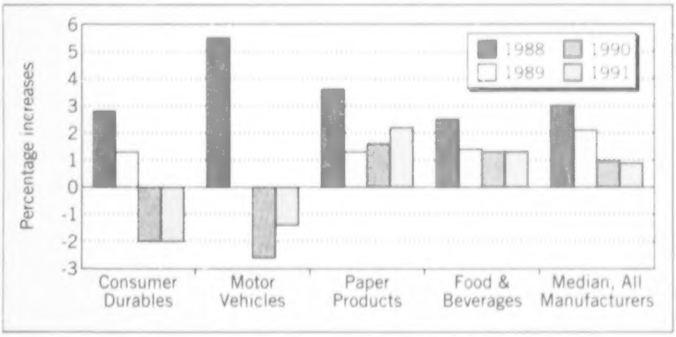
Wholesaling at a Glance

Though much smaller than retailing in terms of employment (six million vs. 12 million), wholesale trade is an equally vital sector of the American economy. Variously known as wholesalers, jobbers, factors, agents, and middlemen, this network of establishments provides the infrastructure that moves finished goods from farm or factory to the nation's army of retailers. Since this stage is where the bulk of mass marketing is done, wholesaling is one of the largest print target markets, with annual commercial printing purchases of $4.4 billion.

Total Establishments: 462,173
Employees: 5,981,378
Total Annual Payroll: $160,225,619

Industry Financial Outlook

Unlike retailing, which continued fairly strong until 1991 and is still growing slightly, the wholesale trade sector has been severely battered by recent economic conditions. There is little uniformity in the data collected in various subcategories, and much diffidence on the part of the government in making projections. However, when corrected for inflation there is no growth in any area, and shrinkage in several, along with declining profitability.

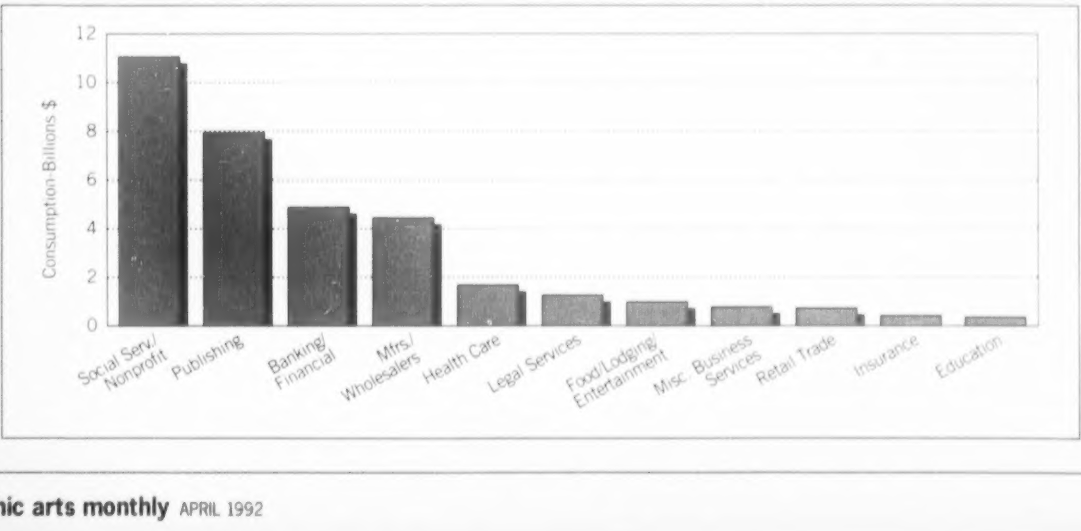


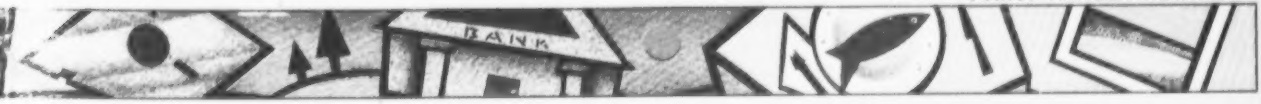
Industry	Printing Consumption ($ billions)
Social Service & Nonprofit	$11.052
Publishing, including software	7.933
Banking & Financial	4.871
Manufacturing & Wholesale Trade	4.436
Health Care	1.674
Legal Services	1.259
Food, Lodging, Entertainment	.983
Miscellaneous Business Services	.775
Retail Trade	.725
Insurance	.422
Education	.362
TOTAL:	$20.007

Charts and graphs by Annabelle Carter

Ranking of the Print Target Markets

Industries to be covered in the Print Target Markets series in 1992 were selected from a DRI/McGraw-Hill listing of the largest purchasers of goods and services from commercial printers. This list was further refined by the editors, primarily by the elimination of industries that are not logical targets for small- to medium-size commercial printers. The resulting list represents more than a third of all business-to-business printing sales.

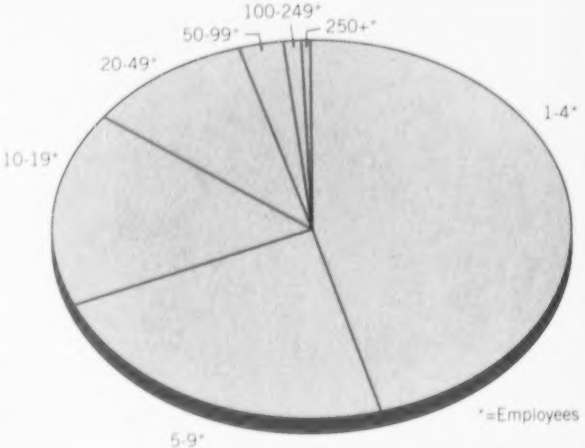




Wholesale Establishments by Employee Size

As might be expected by the nature of their business, wholesale establishments tend to be somewhat larger than retailers—just under 69% of wholesalers have fewer than 20 employees, versus 90% of retailers (and 80% of printers). Readers should be careful about extrapolating from these figures, as sales volume per employee can vary wildly from one segment of wholesaling to another.

1-4 Employees	212,173	45.9%
5-9 Employees	106,187	22.9%
10-19 Employees	76,210	16.5%
20-49 Employees	47,779	10.3%
50-99 Employees	12,913	2.8%
100-249 Employees	5,392	1.2%
250-499 Employees	1,110	0.2%
500-999 Employees	311	0.07%
1000+ Employees	98	0.02%



Industry Structure

Wholesaling is generally divided into durable goods and nondurable goods. While it is possible to question the relative durability of some products, the division itself is clear and logical: durable goods wear out, nondurable goods are used up. That is, consumables such as paper, food, and beverages are nondurable, whereas armchairs and drainspouts are durable. Each of the major categories shown here is broken up into myriad subcategories: "groceries," for example, includes not only general-line groceries but also dairy products (except dried or canned), poultry and poultry products, confectionery, fish and seafoods, meats and meat products, fresh fruits and vegetables, and miscellaneous.

Category	Number of Establishments
DURABLES	286,967
Motor Vehicles, Parts, & Supplies	43,813
Furniture & Homefurnishings	13,958
Lumber & Construction Materials	15,789
Professional & Commercial Equipment	42,749
Metals & Minerals (except petroleum)	10,702
Electrical Goods	32,635
Hardware, Plumbing, & Heating Equipment	22,600
Machinery, Equipment, & Supplies	71,423
Miscellaneous Durable Goods	32,243

Category	Number of Establishments
NONDURABLES	166,615
Paper & Paper Products	16,499
Drugs, Proprietaries, & Sundries	4,737
Apparel, Piece Goods, & Notions	16,343
Groceries & Related Products	40,651
Farm-Product Raw Materials	12,179
Chemicals & Allied Products	12,278
Petroleum & Petroleum Products	15,691
Beer, Wine, & Distilled Beverages	5,679
Miscellaneous Nondurable Goods	42,387

Source: U.S. Department of Commerce, County Business Patterns

Regional Distribution–Wholesalers

Region	Durables	Nondurables
New England	15,746	7,505
Middle Atlantic	45,487	30,789
South Atlantic	49,394	25,122
East North Central	48,207	25,366
West North Central	21,862	17,373
East South Central	15,705	8,474
West South Central	31,864	17,537
Mountain	15,544	8,308
Pacific	45,084	24,990

Source: U.S. Department of Commerce, County Business Patterns

Key to Regions

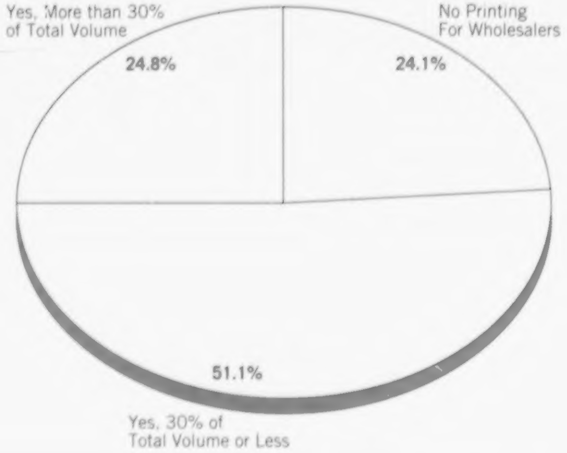
The nine geographic regions, as referred to throughout this survey:

New England (NE): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **Mid-Atlantic (MA):** New Jersey, New York, Pennsylvania. **South Atlantic (SA):** Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia. **East South Central (ESC):** Alabama, Mississippi, Kentucky, Tennessee. **East North Central (ENC):** Illinois, Indiana, Michigan, Ohio, Wisconsin. **West North Central (WNC):** Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. **West South Central (WSC):** Arkansas, Louisiana, Oklahoma, Texas. **Mountain (M):** Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Pacific (P):** Alaska, California, Hawaii, Oregon, Washington.

Does Your Firm Work for this Industry?

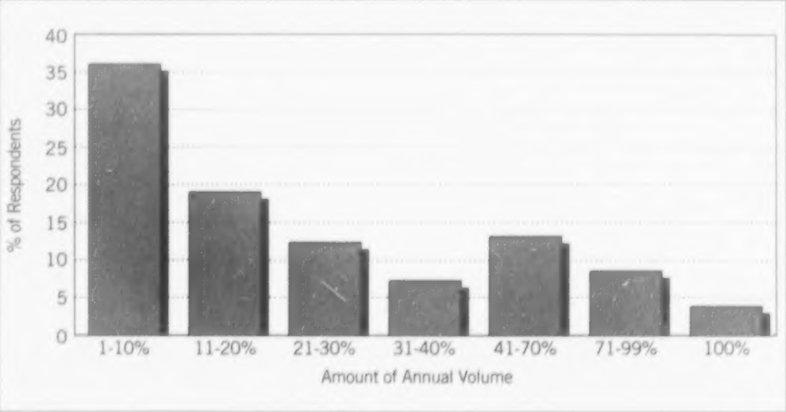
To measure the breadth of wholesaling's impact on commercial printing, small and medium-sized commercial printers across the country were surveyed for this article. Printers to be surveyed were selected on a random (every nth name) basis from the current circulation list of GRAPHIC ARTS MONTHLY. More than 75% of printers responding to the survey reported doing at least some work for the wholesale trade industry.

This is the largest representation of any industry so far studied, which is as it should be; wholesaling is the most important (in terms of volume) target market for printing covered up to this point.

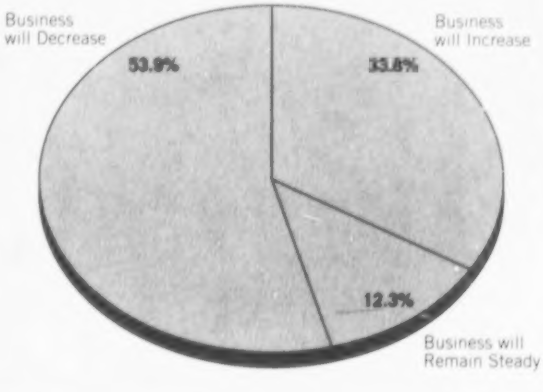


If So, How Much of Your Annual Volume is Printing for Wholesalers?

A large number of printers derive a substantial amount of their business (over 40%) from wholesalers. Small printers (the vast majority of printers sampled for this survey have fewer than 20 employees) tend to be generalized job shops, but wholesaling is such a voracious consumer of printing that more than a quarter of those surveyed do a major part of their business with wholesalers. Better than 12% derive over 70% of their business from this market, and a surprising number (nearly 4%) derive all of it from wholesaling.



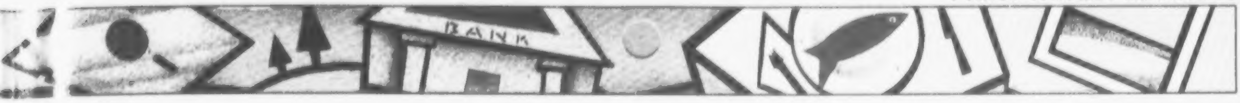
Will your wholesale business rise or fall?



Printer-Supplied Products for Wholesaling

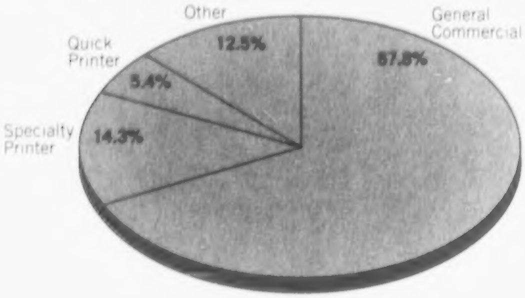
As with the other industries studied, commercial printers sell an awful lot of stationery and business forms to wholesalers. Not surprisingly, an almost identical proportion sell advertising printing to this segment. These figures show only the percentage of printers providing some of these products to the segment and not relative volumes; however, it seems reasonable to assume that wholesalers buy a substantially larger amount of advertising materials, and thus more color work, than other market segments.

Stationery and Business Cards	76.7%
Business Forms	75.4%
Advertising Sheets, Pamphlets, or Brochures	74.2%
Unbound Non-Advertising Material	44.1%
Miscellaneous Non-Printing Services	30.5%
Bound Publications	26.3%



Regional Update/Chicago

Type of Company



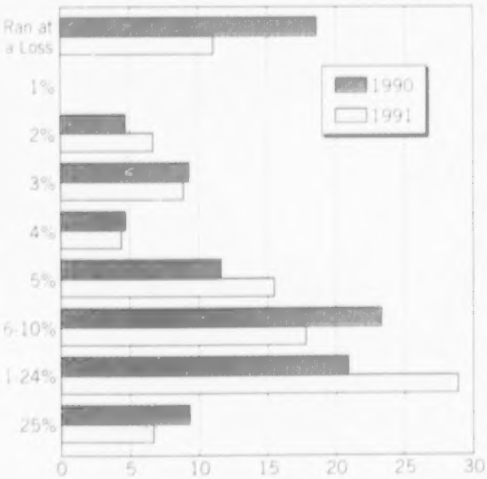
Profile of Respondents

Commercial printers in the metropolitan Chicago region responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area. Figures for 1991 were estimated.

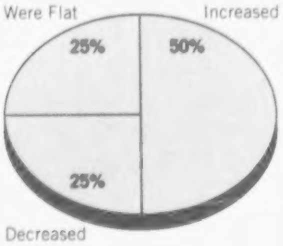
Gross Sales in 1991	
Less than $500,000	58.8%
$500,000-749,999	11.8%
$750,000-999,999	5.9%
$1 million-2,499,999	15.7%
$2,500,000-4,999,999	5.9%
$5 million-9,999,999	1.9%

# of Employees	
1-4	40.4%
5-9	26.9%
10-19	26.9%
20 or more	5.8%

Profit as a Percent of Gross Sales, 1990



How Sales Changed, 1990 to 1991

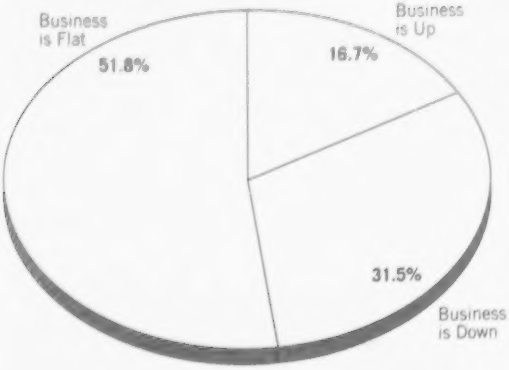


1990 to 1991	
Sales Increased	50%
Sales Decreased	25%
Sales Were Flat	25%

If Sales Increased 1990-1991, How Large Was Increase?	
Less than 5%	13.0%
5-10%	34.8%
11-20%	30.4%
21-50%	21.7%
More than 50%	0%

If Sales Decreased 1990-1991, How Large Was Decrease?	
Less than 5%	0%
5-10%	41.7%
11-20%	50.0%
21-50%	8.3%
More than 50%	0%

Perception Index



Comments by Printers

- The business is out there. We feel very optimistic about 1992.
- We plan to increase our size by half in a new location in 1992.
- Our 24th year is more competitive, less profitable. It's harder to be solvent and maintain good credit rating.
- Printers are trying real hard; profit margins seem to be less and less all the time, and buyers want more and more. When will it get back to the way it used to be?
- The market is becoming saturated with smaller shops. Development of a specific market niche is becoming crucial.
- We're a growing business, yet there's more competition.

A CAHNERS PUBLICATION MAY 1992

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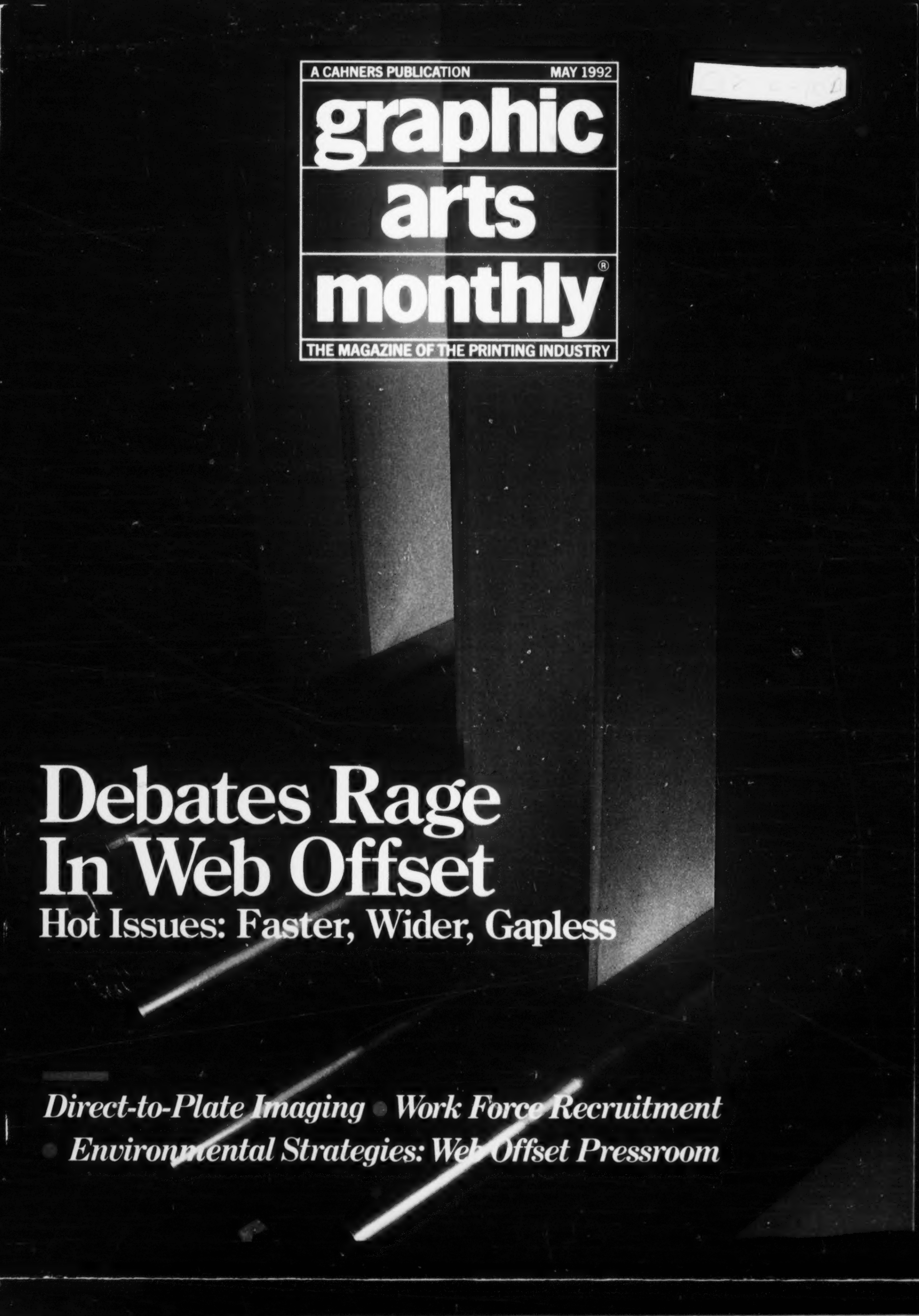
THE MAGAZINE OF THE PRINTING INDUSTRY



Debates Rage In Web Offset

Hot Issues: Faster, Wider, Gapless

Direct-to-Plate Imaging • *Work Force Recruitment*

• *Environmental Strategies: Web Offset Pressroom*

VOLUME 64, NUMBER 5

A CAHNERS PUBLICATION MAY 1992

graphic arts monthly

THE MAGAZINE OF THE PRINTING INDUSTRY

TOTAL CIRCULATION: 99,585

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Vice-President and Publisher Ronald C. Andriani

Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken, Lisa Cross

Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager Peter Johnston (212) 932-3368

Project Editor Debora Clesh Toth

Midwest Editor Bill Esler (312) 226-4641

Contributing Editors Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Michael J. Ducey

Classified Advertising Manager Kevin D. Thomas (212) 463-6843 Maureen Lewis, Assistant

Direct Marketing Manager Richard Negri (212) 463-6827

Business Manager Jerry Arotsky

Contracts Jeffrey Rothstein

Production Manager Daniel Coakley (212) 463-6545

Promotion Manager Dorian Torregrossa

Research Manager Angela Venturino Darchi

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Bulk Reprints Carol Bien 1-800-323-4958

Supplement Reprints Cathy Dionne 1-800-523-9654

Circulation Director Ed Christ (303) 398-7609

Subscriptions/Back Issues 1-800-637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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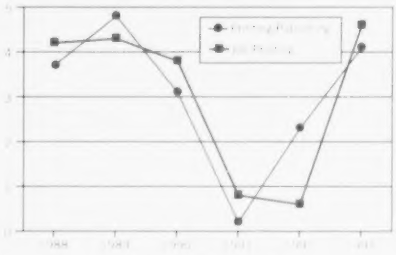
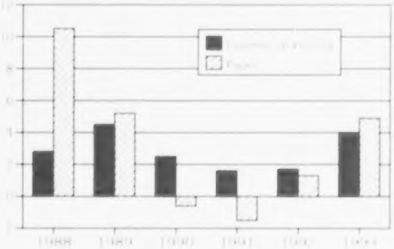
Production Index Shows Slight Improvements



Industrial Production
annual % change
Source: Federal Reserve Board Forecast: Cahners Economics

The industrial production index for printing and publishing has shown steady growth for the last six months, following a real slowdown in mid-1991. Currently 1.6% above the year-ago level, the upward movements in the index indicate that industry activity is improving. Production growth is projected at 2.2% for 1992 and 4.1% for 1993. The index is a weighted composite of the three sectors of the industry. Newspapers represent one quarter of the industry's output and this sector remains the sore spot, as production levels are well below a year ago. In fact, 1991 was the third year in a row of declining activity. The periodical and book sector represents 30% of the industry; production has continued at a strong pace, despite a slowdown in sales growth of these products. The final and largest sector of the industry, job printing, is currently experiencing its slowest period since 1980. After a flat year in 1991, job printing production is expected to post only minimal growth in 1992. A strong rebound in printing activity is not anticipated until 1993.

Price Increases Remain Small



Producer Prices
annual % change
Source: Bureau of Labor Statistics Forecast: Cahners Economics

One of the positive results of an economic recession is the effect on price inflation. While a robust economy puts upward pressure on prices, a recession removes that pressure. The commercial printing sector is currently seeing a tremendous slowdown in producer price inflation. In 1991, the producer price index (PPI) for commercial printing posted a slim 1.6% rise. In the first few months of 1992, the index has shown little upward movement and currently stands only 1.2% above the same level a year ago. Aside from the effects of the recession, printing prices have stabilized as the costs of inputs have decreased. In particular, the price of paper actually dropped for the second consecutive year in 1991. Paper prices are not expected to swell any time in the near future, given the general overcapacity and slack demand for paper. Paper price gains are expected to be 1.3% in 1992 and 4.9% in 1993. Likewise, prices of other supplies have also slowed. As a result, we predict that printing prices will post gains of 1.7% in 1992 and 4% in 1993.

DEXGRAPHICARTSINDEX**GRAPHIC ARTS INDEX**GRAPHICARTSIND

The printing activity indicators outline a stable industry situation. Given the current economic environment, the industry is not expected to improve substantially. Still, slow growth is better than no growth. As a whole, the economy is projected to pick up in the second half of this year. All the major economic indicators, including business confidence and the Cahners Early Warning Indicator, point toward this impending upturn.

PRINTING ACTIVITY INDICATORS

				Annual % Change			
General Economic	**Q4/90**	**Q3/91**	**Q4/91**	**1990**	**1991**	**1992**	**1993**
Gross Domestic Product (1)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Business Investment (1)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Prime Rate (2)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Industrial Production (3)	**Jan 91**	**Dec 91**	**Jan 92**	**1990**	**1991**	**1992**	**1993**
Printing & Publishing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Newspapers	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Periodicals, Books, Cards	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Job Printing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Producer Prices (4)							
Commercial Printing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Printing Trades Machinery	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Printing Ink	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Paper	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

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Politics Sets Education Agenda

By Peter Johnston
Special Projects Manager

As you are aware, this series focuses on various industries, groups of industries, and services. And, as you are no doubt sick of hearing already, this is an election year. Researching and writing these articles at such a politically busy time has brought home as never before the degree to which politics and the economy are entangled.

This is not exactly news, of course. Every field of economic activity imaginable, including the printing industry, is represented in Washington and in most state capitals by a professional lobbying organization. Those folks are not there because they took their ninth-grade civics classes to heart and never forgot them. Not at all. They are there because a lot of money is at stake.

Take, for example, the subject of this month's installment, education. It is not exactly an industry, but it is a major focus of economic activity. At any given moment, between 50 and 60 million people in this country are formally enrolled in an educational institution of some sort.

There have been some questions raised about how much they are learning, or whether they should be learning something else instead; indeed, the publication of books about what's wrong with education has itself become a thriving subindustry.

Educational institutions buy a lot of printing.

What is not in question is that all this education, whatever its efficacy, costs a great deal of money. College costs the most, for a lot of reasons, including perhaps the fact that the current ratio of college students to college employees in the U.S. is about 12 to 1; the ratio for elementary and secondary schools is 92 to 1. But even kindergarten can be expensive these days.

Anne Gusman

The good news is that educational institutions buy a lot of printing. Our own figures show a volume of $362 million, which does not count the vast amount of in-plant printing done in this sector. Whatever its political fortunes, our survey respondents expect it to remain as a stable and often growing print customer.

This article is the fifth in a yearlong series. In addition to the Print Target Market profile, each of these articles contains news on the fortunes of the commercial printing industry in one geographic region. Subject of this month's Regional Update: the Pacific region (California, Oregon, Washington, Alaska, and Hawaii).

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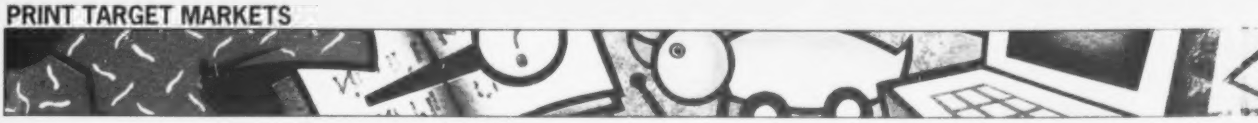
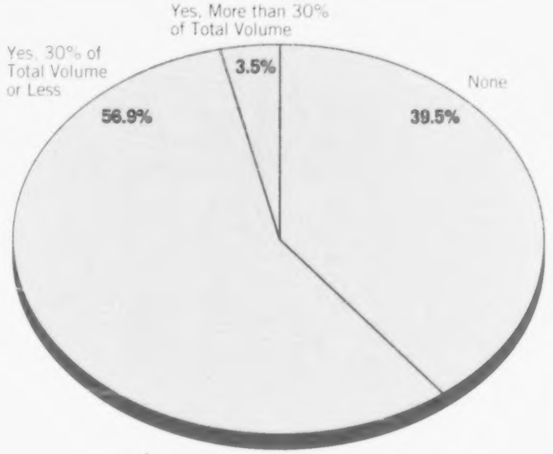


Does Your Firm Work for Educational Institutions?

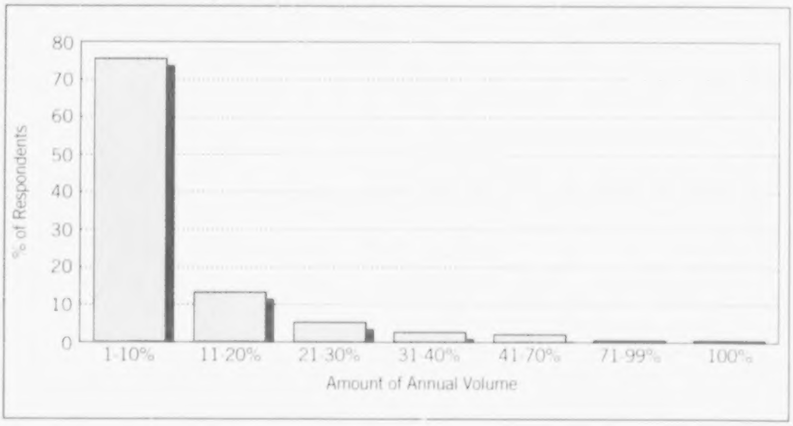
To measure the breadth of education's impact on commercial printing, small- and medium-sized commercial printers across the country were surveyed for this article. Printers to be surveyed were selected on a random (every nth name) basis from the current circulation list of GRAPHIC ARTS MONTHLY. Just over 60% of printers responding to the survey reported doing at least some work for educational establishments.

As noted elsewhere, this representation would be much larger if it were not for the high incidence of in-plant printing plants in larger educational institutions. A recent survey by the In-Plant Printing Management Association shows that about 25% of in-plant printers seem to be in educational institutions, which means that there are about 16,500 educational in-plants. In any case, there are unquestionably an awful lot of them.

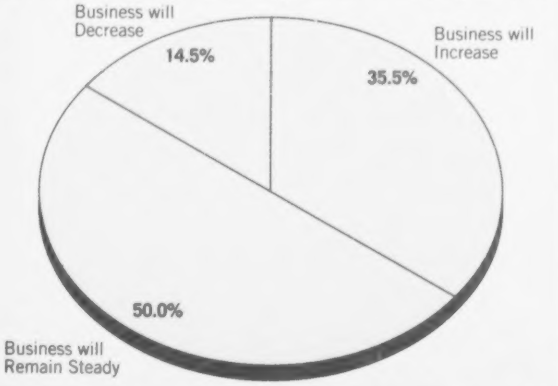


If So, How Much of Your Annual Volume is Printing for Education?

Though a fairly high percentage of printers report doing some work for educational institutions, the amount of work they derive from this market is comparatively low. Education provides 10% or less of total annual volume for 75% of respondents who do some educational printing. On the high end of the scale, we see very few plants heavily dependent on education: just over 3% of respondents derive more than 40% of their revenues from schools.



Over the next 12 months, will your share of business represented by education rise or fall?



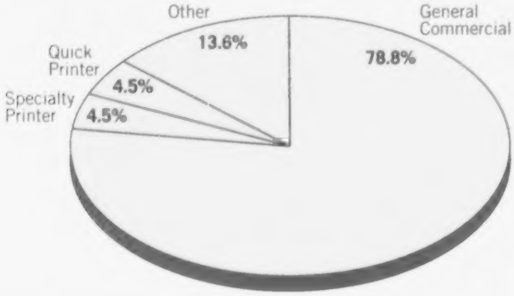
Printer-Supplied Products for Education

As they do to all the other industries studied, commercial printers sell an awful lot of stationery and business forms to educational institutions. An almost identical proportion of them sell advertising printing of some kind to this segment, one indication of how competitive the education "business" has become.

Stationery and Business Cards	60.6%
Business Forms	55.3%
Advertising Sheets, Pamphlets, or Brochures	45.2%
Unbound Non-Advertising Material	33.5%
Miscellaneous Non-Printing Services	32.4%
Bound Publications	26.6%

Regional Update/Pacific

Type of Company



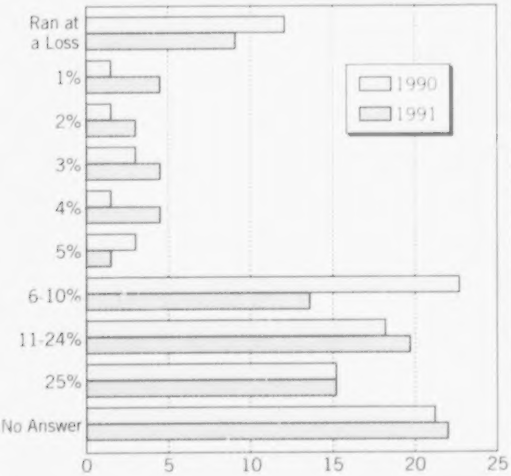
Profile of Respondents

Commercial printers in the far Western states responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area.

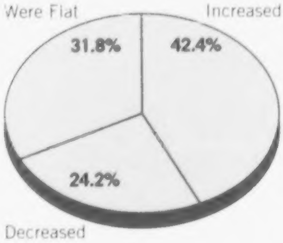
Gross Sales in 1991	
Less than $500,000	66.7%
$500,000-749,999	15.2%
$750,000-999,999	6.1%
$1 million-2,499,999	7.6%
$2,500,000-4,999,999	3.0%
$5 million-9,999,999	1.5%

# of Employees	
1-4	50.0%
5-9	25.8%
10-19	16.7%
20 or more	4.5%

Profit as a Percent of Gross Sales, 1990



How Sales Changed, 1990 to 1991



1990 to 1991	
Sales Increased	42.4%
Sales Decreased	24.2%
Sales Were Flat	31.8%

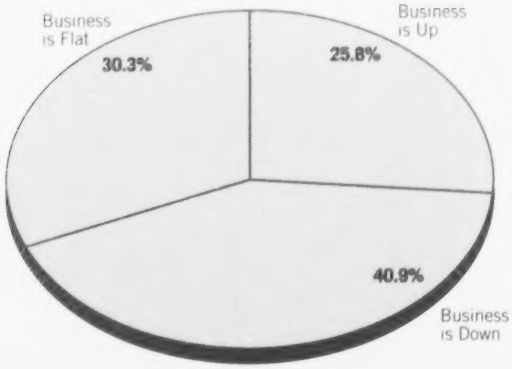
If Sales Increased 1990-1991, How Large Was Increase?

Less than 5%	10.7%
5-10%	35.7%
11-20%	10.7%
21-30%	14.3%
31-50%	14.3%
More than 50%	0%

If Sales Decreased 1990-1991, How Large Was Decrease?

Less than 5%	6.3%
5-10%	43.8%
11-15%	12.5%
16-20%	25.0%
No Answer	12.5%

Perception Index



Comments by Printers

- Business is growing for the ones left.
- In the last 1½ years, business has stopped growing.
- We are doing more desktop publishing than ever before and plan to expand in that area.
- I hope things get better.
- The area's slow. Only businesses with established good customers will survive.
- Business should stabilize by third quarter 1992.
- We've been hit hard by the recession.
- 1991 was a challenging year. We expect growth in 1992.
- We plan to expand in the area of desktop publishing.

Educational Institutions at a Glance

In terms of employment, education is considerably smaller than some of the industries we have looked at (retail, for example, employs nearly 13 million). However, it is still sizeable, employing about twice as many people as the printing industry. Of these 1.6 million employees, 63% are employed by colleges and universities, where the ratio of students to staff is much lower than in elementary and secondary schools. Like the insurance industry, education meets many of its printing needs with in-plant shops.

Total Establishments: 33,225
Employees: 1,630,888
Total Annual Payroll: $25,019,000,000

Source: U.S. Department of Commerce, County Business Patterns

Statistical Outlook for Education

As noted on the cover page, education is not exactly an industry, with projectable sales figures. Its prospects depend on a host of entangled social, political, and economic issues, many of them unpredictable. It also depends on demographics; the portion of the population in the five- to 17-year-old bracket has declined more than 10% over the past decade, and the college-age population (18 to 24) has fallen almost 20%.

Projected Enrollment Increase, 1988-1991
3.0%

Increase, High-School Graduates, 1980-1992
18.9%

Source: U.S. Department of Education, National Center for Education Statistics

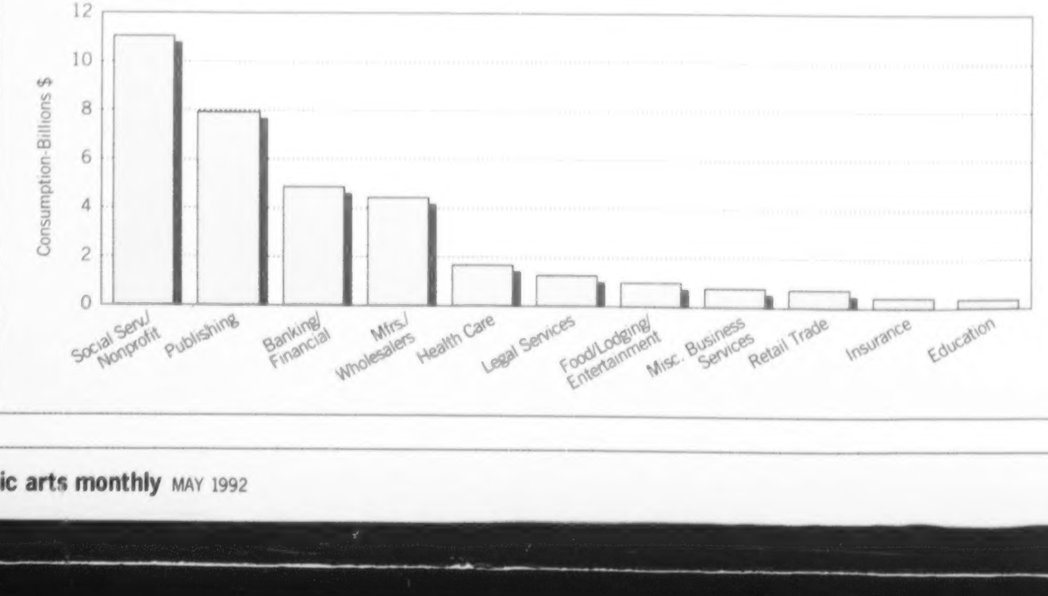
	1987	1986	1985	1980
College Enrollment (millions)	N/A	12.4	12.5	11.4
High school graduates 25 yrs. old and over (percentage)	75.6%	74.7%	73.9%	68.6%
College graduates 25 yrs. old and over (percentage)	19.9%	19.4%	19.4%	17.0%

Source: USA Statistics in Brief, 1990 (A Statistical Abstract Supplement)

Charts and graphs by Annabelle Carter

Ranking of the Print Target Markets

Industries to be covered in the Print Target Markets series in 1992 were selected from a DRI/McGraw-Hill listing of the largest purchasers of goods and services from commercial printers. This list was further refined by the editors, primarily by the elimination of industries that are not logical targets for small- to medium-size commercial printers. The resulting list represents more than a third of all business-to-business printing sales.

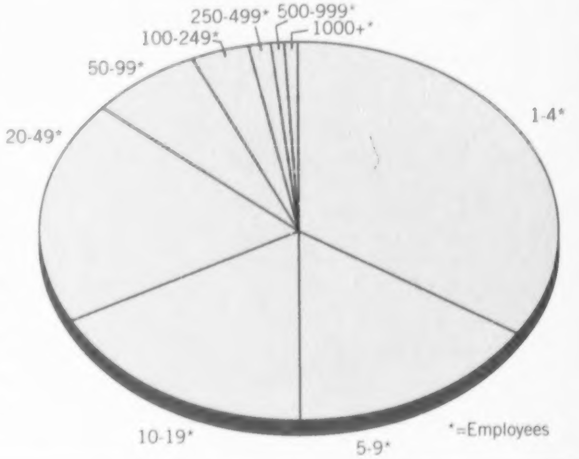


Educational Establishments by Employee Size

Measured this way, establishments of every kind tend to follow the same general curve: mostly small, tapering off gradually to somewhere between 50 and 100 employees, after which the dropoff is precipitous. Schools differ from the businesses we have studied so far in being clumped more in the middle; the 20-49 employees percentage is comparatively quite high.

1-4 Employees	11,437	34.4%
5-9 Employees	5,248	15.8%
10-19 Employees	5,678	17.1%
20-49 Employees	6,388	19.2%
50-99 Employees	2,304	6.9%
100-249 Employees	1,252	3.8%
250-499 Employees	436	1.3%
500-999 Employees	287	0.9%
1000+ Employees	197	0.6%

Source: U.S. Department of Commerce, County Business Patterns



Educational System Structure

Education, like health care (see GAM, January 1992) is not, strictly speaking, an industry. However, the structure of the educational system in this country (as in any other) is very like that of an industry in which raw materials—students—are processed for various lengths of time to produce various end products. The single largest category is elementary schools, from which a majority of children, though by no means all, progress to secondary education, or high school (often known in the private-school sector as preparatory schools, academies, etc.). A smaller percentage goes on to further study, either in college or vocational school, and a still smaller group eventually finds its way into degree-granting graduate schools of some sort. These institutions produce the nation's crop of professionals, that is, people who must hold an academic credential to be licensed to work: doctors, lawyers, architects, registered engineers, and college profesors, to name the most common. They have the lowest student-to- teacher ratio, and are far and away the most expensive part of the educational structure.

Category	Establishments	Employees	Total enrollment
Elementary andSecondary Schools	14,539	433,584	40,024,299
Colleges and Universities	3,018	1,012,868	12,400,000
Libraries	1,655	16,954	N/A
Vocational Schools	4,420	85,981	N/A
Other	8,695	79,151	N/A

Sources: Department of Commerce (County Business Patterns; Statistical Abstract); Department of Education

Regional Profile–Education

Region	Public School Enrollment	Enrollment Increase 1988-1991	1980-1992 Increase, High School Graduates
New England	1,880,718	3.3%	-30.9%
Mid Atlantic	5,345,367	1.1%	-32.9%
E. North Central	6,979,338	0.3%	-25.7%
W. North Central	2,898,995	1.7%	-26.5%
S. Atlantic	6,565,786	4.1%	-30.3%
E. South Central	2,738,906	-0.8%	-13.6%
W. South Central	5,028,534	1.5%	-6.9%
Mountain	2,276,197	5.8%	-5.9%
Pacific	5,667,295	7.9%	-5.7%

Sources: Dept. of Commerce, Dept. of Education

Key to Regions

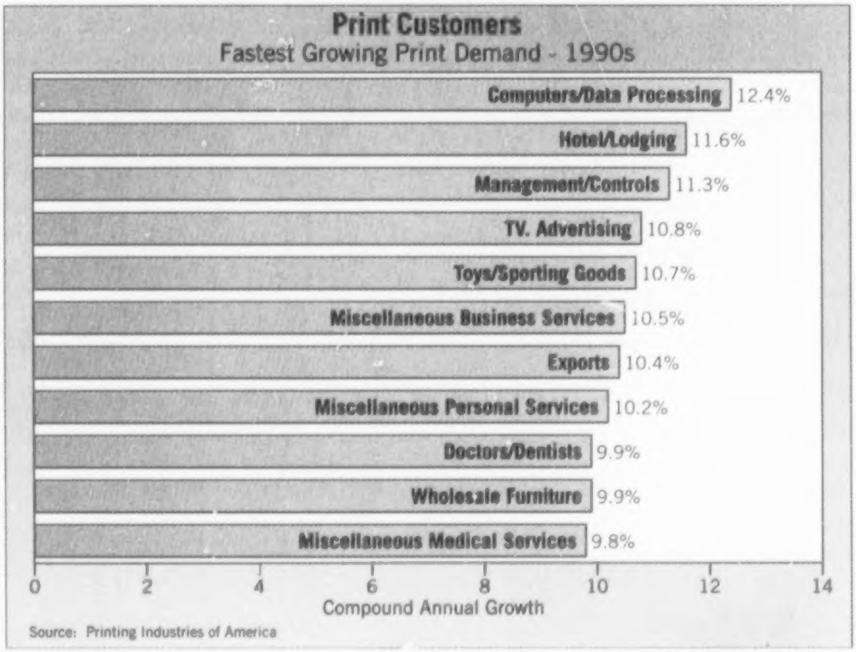
The nine geographic regions, as referred to throughout this survey:

New England (NE): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **Mid-Atlantic (MA):** New Jersey, New York, Pennsylvania. **South Atlantic (SA):** Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia. **East South Central (ESC):** Alabama, Mississippi, Kentucky, Tennessee. **East North Central (ENC):** Illinois, Indiana, Michigan, Ohio, Wisconsin. **West North Central (WNC):** Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. **West South Central (WSC):** Arkansas, Louisiana, Oklahoma, Texas. **Mountain (M):** Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Pacific (P):** Alaska, California, Hawaii, Oregon, Washington.

A Primer For the Future

A thorough company evaluation will set the printer on a positive course toward 2001.

By Michael Karol
Managing Editor



Source: Printing Industries of America

Annabelle Carter

The above chart puts a fix on the fastest-growing potential print customers for the '90s.

Worried about the future? There's ample evidence you should be, according to participants in the recent "Printing Firm of the Future" conference, sponsored by the Printing Industries of America (PIA) and held in Alexandria, Va. But steadfast vigilance (as in keeping abreast of technical advances, marketing ploys, economic factors, your customer base, employee management, and profitability, among other things) coupled with your own reserve of industry knowledge might enable you to keep your company's head above water.

Sinking will be all too easy, however. As moderator R. Judson Fisher, president of Manhardt-Alexander, Inc., noted, "All of us are experiencing radical changes. It's more important than ever before to be aware of future trends." (For the purposes of this article, "future" will be defined as the next 10-20 years.) Those trends are divided into two groups, Ronnie Davis, PIA chief economist added: "External factors (the economy, print markets and customers) which are outside your control, and internal factors (management, investment, marketing and profitability) which you can control."

The questions you need to ask yourself (and have a ready answer) include:

What products/services will you offer?

What customers/buyers will you seek?

What technology and processes do you need?

How will you deal with the competition?

How will you react to external forces you can't change?

Other points to keep in mind when thinking about the future of your business:

—Work force needs. Regardless of the skills on hand, and how proficient your technicians are, their skills will be obsolete by the year 2000.

—Customer base. In the past, said speaker Wallace Stettinius, chairman and CEO of Cadmus Communications, Richmond, Va., customers have typically been "found" by salespeople. Now, and in the future, you must research to figure out who your customers are (or who you want them to be), and send the salespeople out to them.

—Waterless printing. Stettinius predicts the "waterless plate will redefine the market, wreak havoc. The larger sheetfed press will be squeezed by webs on one side and smaller, efficient machines on the other."

—New business habits. The "old ways" create walls between suppliers and customers. Soon, if not already, you'll be competing on the basis of time, not price. The concept of "inventories" will become obsolete.

—Work force environment. Currently, about 80% of the print work force is tied up in routing things, from prepress to the bindery. That will change as processes are roboticized and plants streamlined. Processes and machinery will not need to be attended to, but watched.

> "THROW YOURSELF INTO THE FRYING PAN. SEE HOW IT FEELS. IT'S A GOOD WAY TO GET YOUR JUICES FLOWING."

—Technological obsolescence. Conventional photography, stripping, and other prepress and pressroom jobs will be obsolete or entirely changed, thanks to new technology. "The greatest impact on printing will come from changes in how information is created," said PIA's Davis.

—Vertical markets. These markets, such as healthcare and software, which cross a broad spectrum of industries, are the ones to target for future business, according to consultant David Raphael, president of the Marcar Management Institute in San Mateo, Calif. Chart these markets' growth to discover those companies in your community with the most pressing need for printed product [see also the Print Target Market series, running year-long in Graphic Arts Monthly, p. 59].

—Electronic pressroom. Keep in mind that most of the information that will come to you in the next decade will be electronic. Are you capable of receiving it and distributing it properly, so you can work with it?

At least an electronic pressroom will facilitate the printer's handling of a fragmented society, which is what statisticians say is happening to America. Davis added that with the fragmentation comes consumer markets that are more segmented. The implication is new, extremely targeted marketing programs for printers.

The real key to success, said Stettinius, will come in how *different* a printer can be. "Customers generally decide on price. You must impress them with your competitive advantage." And finding your advantage starts with redefining your purpose, Stettinius suggests: "We define ourselves by our processes (web offset, sheetfed, etc.). That's the wrong mindset. You have to think in terms of products and the lifecycles of those products. Once you've established what your products are, examine why your customers buy from you. Then you can begin working on a better mousetrap, to better satisfy customer needs."

The best way to do this is to "know thyself". David Hart, president of Hart Graphics, noted, with tongue in cheek, "The trouble with our times is the future is not what it used to be." Hart's point is well taken; since ideas, and realities, about the future have changed, the best way to meet this new world head on is by knowing as much as possible about your company. "Look at your people, technology, equipment utilization and capacity, systems, and financial capability," Hart said. "Study the markets you want to be in, or are in. Consider the barriers to entry: technology, capital, market knowledge, and distribution channels. Look for industry consolidation and latent competitors; look at suppliers, and examine forward and backward distribution."

Basically, Hart advocated, employ the concept of benchmarking, taking an objective, third-party view of your business. Benchmarking is a continuous process of determining success factors; comparing yourself to your toughest competitor or "best-in-class" performer; and using information to develop strategies and functional plans. The goal is to make your company the best in the market.

"Overcome the 'frog-in-the-frying-pan scenario'," said Stettinius, "where, if you put a frog in a frying pan and turn the heat up very slowly, he won't move, and eventually, he'll fry. But if you turn the heat up suddenly, the frog will jump, and survive. Throw yourself into the frying pan. See how it feels. It's a good way to get your juices flowing."

Raphael stressed that while the threat of electronic publishing has been held over the print industry's collective head for years (as an eventual substitute for its product), in fact consumer spending for the printed word has risen on an absolute level every year since 1970. Four times more is spent on print than on electronic product.

Printed materials will be around through the next century and beyond. The ultimate question printers need to answer is, "Will my company still be there, producing them?"

PAPER/Michael J. Ducey

New Recycled Definitions Stir the Market

Setting the standards and definitions of paper grades that content recycled papers has been a challenge for industry, government, and consumers. When the issues were first raised in the mid-1980s, spurred on by landfill closures and floating garbage heaps, the industry sought easy identification of recycled paper. Any paper that was recovered after "virgin fiber" processing could be categorized as recycled. Under these standards, nearly all mills could claim a secondary fiber content, simply by reprocessing "broke", which is production of off-spec paper or paper formed after a machine "break". Broke could be directed to a "broke pit", which is a tank below the machine that can repulp fibers and return them to processing. Soon after this loophole was challenged, "preconsumer" and "postconsumer" categories were born.

> *"The new definition would allow over-issue magazines, printer clippings, and other similar wastes to be part of postconsumer waste."*

The issue became a product labeling question, usually the domain of the Federal Trade Commission (FTC). But the Environmental Protection Agency (EPA), which had established a dialogue with the industry concerning dioxin (see last month's column), took up the issue and led the first foray into proper labeling. The result was rather primitive definitions of preconsumer and postconsumer paper waste, and mills began to turn out a variety of grades to suit the definitions. The so-called "50/10" grades, which contain 50% preconsumer and 10% postconsumer waste fibers, are still a market force, but some mills are already moving aggressively toward higher waste fiber contents to meet the next generation of standards and definitions put forth by a blue chip committee in February.

Table 1. Government procurement criteria for paper products

Product	Total Recycled Fiber	Post-Consumer or comparable fiber
Newsprint	40%	40%
Uncoated printing and writing	50%	15%
Coated printing and Writing	40%	10%

Source: Recycling Advisory Council, Special Task Force on Standards and Definitions and Recycled Paper

Table 2. U.S. production and fiber composition of printing and writing paper
1990 v. 1995 (millions of tons)

	1990	1995
Production	21.8	26.8
Woodpulp requirement	16.3	18.7-19.9
Recycled fiber requirement	1.2	1.4-2.7
Recycled fiber content	6.8%	6.8%-12.9%

Source: Andover International Associates

The overall concern was, "Who is the consumer?" and "By what definition is paper consumed?" The Recycling Advisory Council's (RAC) Special Task Force on Standards and Definitions and Recycled Paper was formed by the National Recycling Coalition (NRC) to answer those questions, and enlisted consultants to forecast the compatibility between the new classifications and the amount of recovered paper and its processing capacity. At the same time, not-for-profit organizations and for-profit businesses are attempting their own labeling scenarios.

RAC's new code is a proposed recycled paper standard, that has two criteria which must be met: "total recycled fiber" and "postconsumer or comparable fiber". Total recycled fiber is defined as "fibers derived from recovered paper excluding any paper generated at the paper mill prior to completion of the paper manufacturing process." Postconsumer or comparable fiber is defined as "fibers derived from postconsumer materials as defined by the Resource Recovery Act (RCRA) Sec. 6002 and including fiber derived from recovered paper which has been printed and/or contains inks or colored dyes."

The main conflict surrounds the "postconsumer or comparable" fiber criteria. By including "comparable", the new definition would allow over-issue magazines, printer clippings and other similar wastes to be part of postconsumer waste. Critics charge that waste from offices, small businesses and homes will be driven back into landfills. Further, technologies to deink waste, particularly those from offices (like laser prints and photocopying), will develop slower.

The result could be disastrous. With no outlet for office waste other than expensive landfills, businesses might be forced into the "paperless office" concept. The Paper Definitions Working Group, a private body serving as a watchdog and advocator of recycling initiatives, is pressing for categorical differences between "real" postconsumer material and preconsumer waste which it considers industrial (printers, converts, etc.).

NRC's board votes on the procurement recommendations and the RAC standards and definitions this month. If accepted, EPA could have the language for a revamped RCRA and the FTC could have its new labeling criteria (see Table 1.).

(Continued on p. 130)

Nevertheless, some 400 printing and writing grades in today's market boast of recovered paper content, but their production has had very little impact on solid waste reduction. Total content of recovered fiber in printing and writing production could increase from 6.8% to 12% by 1995 (Table 2, pg. 128). The 40% recovery rate goal (or 35 million tons) may be achieved, but the growth of paper production will out-pace recovery and disposal in landfills will increase. An increase in tipping fees, assisted by a nationwide contraction of landfill capacity, will drive consumers of paper away from their copy machines and computer printers unless measures of recovered paper "closure" are instituted.

Newsprint, tissue, and containerboard producers have registered some success, both economically and logistically. There are several examples of closing the wastepaper cycle. McDonald's recycles its containerboard by collecting it and paper waste at eateries, then returns it to mills that process the material to make recycled paper bags and recycled paperboard products. Stone Container and Waste Management have a joint venture called Paper Recycling International, which uses and trades waste collected through Waste Management's programs at Stone's paper mills.

So far, the economic incentive has eluded printing and writing producers. Cross Pointe Paper, a division of Pentair, collects paper from large corporations like Dow Chemical and others that have office recycling programs. They make several book and converting grades containing up to 25% "real" postconsumer paper. Very few printing and writing producers have closed-end collection and production loops, and their content of "real" postconsumer is somewhat mythical.

Consumer group labeling offers private initiatives attempting to solve the recycling language in marketing and labeling products. "Green Seal" is a not-for-profit organization, funded by foundations and individuals, that is setting standards and definitions for consumer products on a case-by-case basis. The company looks at environmental impact and opportunities at reducing it via consumer awareness and action. Tissue producers have already accepted the Green Seal standard and printing and writing producers are in the final stages of acceptance.

The certification process for printing and writing producers is focused on four distinctions: paper fiber sources, use of deinking solvents, bleaching and performance and packaging. Paper fiber sources impact recycled paper content. Certified printing and writing grades must be produced from 60% recovered paper and 15% postconsumer. Recovered paper is defined as paper recovered from industrial plants like printing and converting operations, but it would not include paper mill broke. Postconsumer paper is defined as paper waste generated by a business or consumed for its intended use. Green Seal is currently reviewing comments and inquiries, and a decision will come later this spring. ⊟

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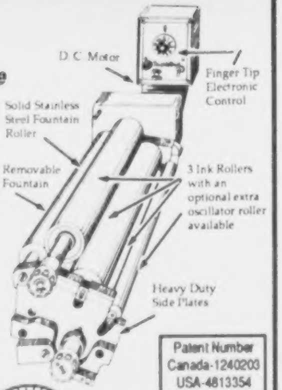
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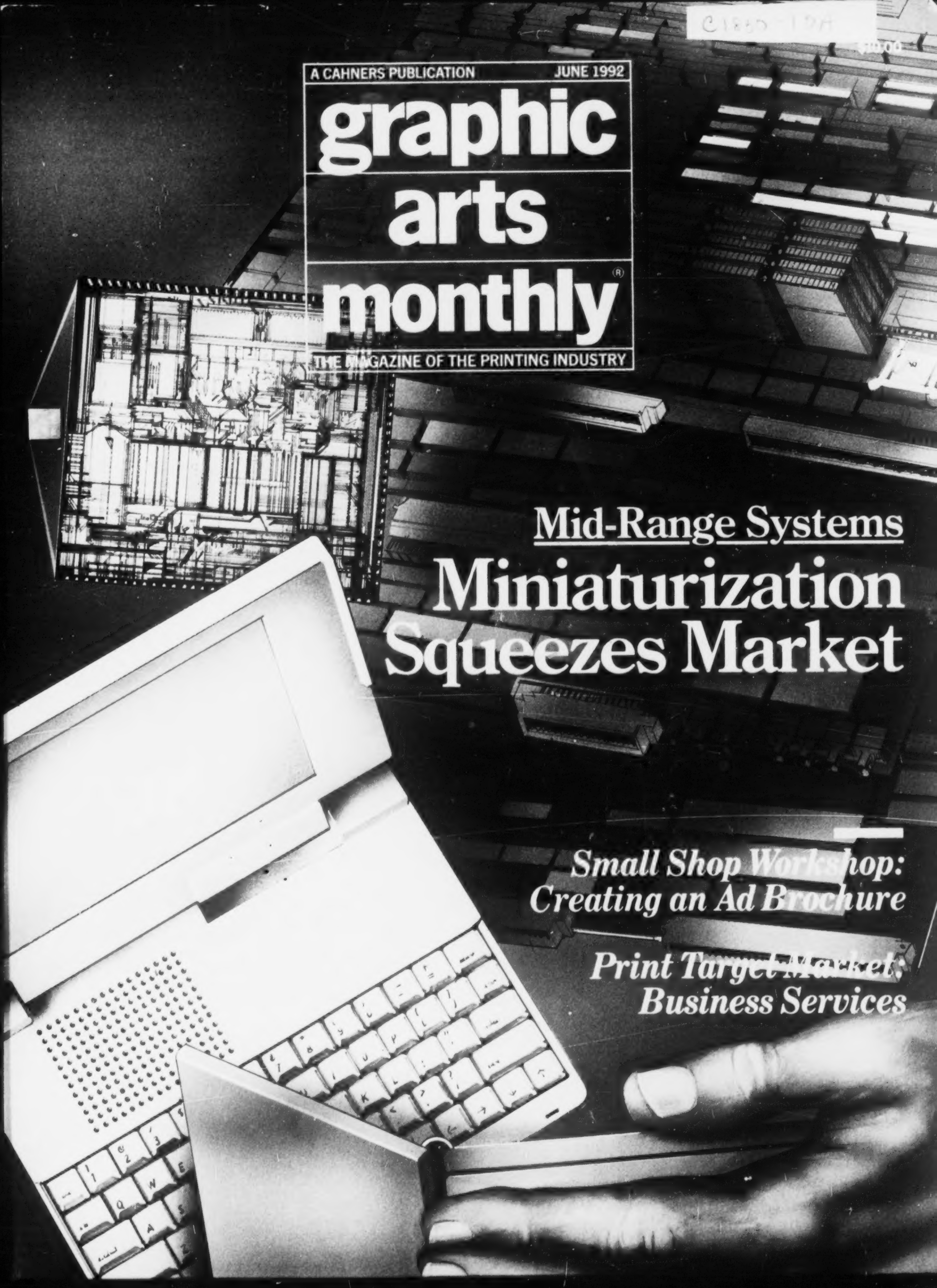

Mid-Range Systems

Miniaturization Squeezes Market

Small Shop Workshop: Creating an Ad Brochure

Print Target Market: Business Services

VOLUME 64, NUMBER 6

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TOTAL CIRCULATION: 99,585

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Ronald C. Andriani

Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken,
Lisa Cross

Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston (212) 932-3368

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
Dick Gorelick, George Griffin, Gerald Silver, Nancy Plowman, Theodore Lustig, Michael J. Ducey

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager
Richard Negri (212) 463-6827

Business Manager Jerry Arotsky

Contracts Jeffrey Rothstein

Production Manager
Daniel Coakley (212) 463-6545

Promotion Manager
Dorian Torregrossa

Research Manager
Angela Venturino Darchi

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Bulk Reprints Carol Bien
1-800-323-4958

Supplement Reprints Cathy Dionne
1-800-523-9654

Circulation Director
Ed Christ (303) 398-7609

Subscriptions/Back Issues
1-800-637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6733

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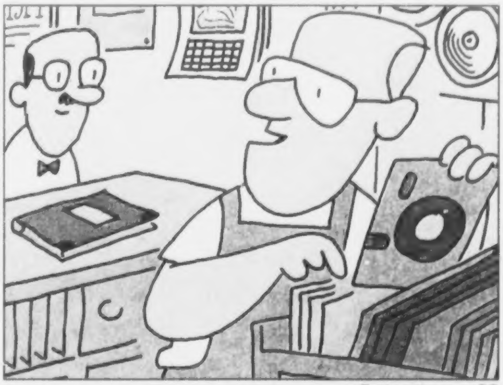

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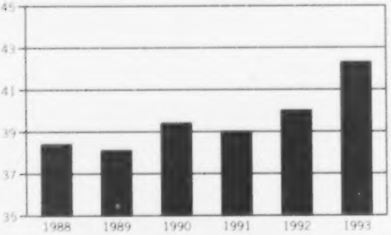
Paper Producers Cut Expansion

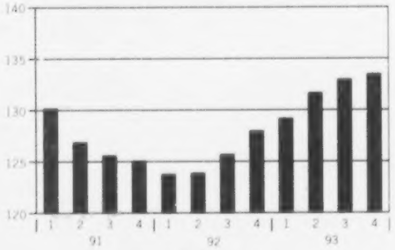


Total Paper Production
millions of short tons
Source: American Paper Institute Forecast: Cahners Economics

So far this year, total paper production has matched its year-ago levels on a seasonally adjusted basis. A pickup in paper consumption was expected to immediately follow the rebound in the general economy. But, demand has not responded as was expected. As a result, production levels are expected to rise only 2.6% this year. Given the struggles of the past two years and the increasing environmental demands, paper producers have reduced their future expansion plans.

Much of the planned expenditures are targeted at improving and rebuilding existing facilities. In particular, producers need to revamp operations to handle the increased usage of recovered paper in the papermaking process. Currently, waste paper represents nearly 28% of the raw materials used. The paper industry has set a goal of 40% recovery by 1995. Total paper capacity is expected to increase 2.4% per year, with most of the gains coming from coated and uncoated free sheet.

Paper Prices Continue to Fall



Paper Price Index
1982 = 100
Source: Bureau of Labor Statistics Forecast: Cahners Economics

The good news continues for printers and other purchasers of paper—supply is plentiful and prices are favorable. Unless demand starts to increase at a much faster pace than can be supplied by the new capacity plans, paper prices will remain in check. Paper prices have been dropping steadily since early 1991 and the declines continue. In the first quarter of 1992, the producer price index for paper fell 4.9% below the same period last year to 123.1 (1982 = 100).

This is the lowest index value since the middle of 1988. As shown in the table below, transaction prices dropped for every major paper category. Indeed, for many paper grades 1992 will represent the third consecutive year of declines in prices. The paper price index is expected to bottom out this year and begin to slowly rebound by year-end. Cahners projects a 1.3% loss in 1992, followed by a 5.2% rise in 1993.

NDEXGRAPHICARTSINDEX**GRAPHIC ARTS INDEX**GRAPHICARTSIND

This month's datatable highlights the continued drop in paper prices across the board. First-quarter 1992 marked the fifth quarter of price declines for many paper grades. Prices will remain low as long as demand is low and supply is plentiful. Shipments of all paper types, with the exception of uncoated free sheet, continue to struggle. Publishers are shopping around for the best deals on paper and uncoated grades have increased in popularity.

PAPER INDUSTRY INDICATORS

				Annual Percent Change		
Shipments (1)	**Q1/91**	**Q4/91**	**Q1/92**	**1990**	**1991**	**1992**
Coated paper	1788	1839	1792	3.9	−2.2	0.8
Uncoated groundwood	426	446	399	0.4	−0.8	−0.3
Uncoated free sheet	2729	2940	2801	4.1	0.3	3.1
Transaction Prices (2)						
Newsprint–30lb., East	$590	$480	$429	−2.3	−4.6	−13.9
Directory-uncoated groundwood, 22.5lb., white	770	750	750	−4.0	−2.1	2.3
Supercalendered-uncoated groundwood, 34lb	800	780	760	−2.7	−1.6	−2.5
Offset–uncoated groundwood	635	607	600	−3.1	−3.6	−0.6
Offset–uncoated, white, 50lb	770	717	643	−4.7	−13.1	−6.5
Coated–No.1, 70lb	1607	1552	1540	−0.1	−2.0	−0.9
Coated–No.3	1170	1030	1000	0.2	−13.1	−3.4
Coated–No.5, 34lb. roto	915	897	880	−3.7	−4.2	−0.9
Bond–uncoated white, No.1, 20lb	1090	1077	1070	−0.7	−0.7	−0.3
Bond–uncoated white, No.4, 20lb	860	747	640	−10.1	−16.6	−10.2

(1) Thousands of short tons. American Paper Institute. (2) Dollars per ton. *Purchasing* magazine's Transaction Pricing Service. All forecasts by Cahners Economics.

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Downsizing Aids Service Work

In compiling its list of major consumers of commercial printing, DRI/McGraw-Hill aptly refers to this one as "miscellaneous business services." Miscellaneous it certainly is; at first glance, this "industry" looks like a convenient catchall for the Department of Commerce.

At second glance, however, a pattern begins to emerge. These enterprises all provide services of one kind or another for other businesses, much like the printing industry. Indeed, while the Department of Commerce classifies printing as a manufacturing industry, and thus separate from business services, there are a number of graphic arts-related businesses in the collection of SICs that make up Business Services: mailing, direct-mail advertising, photocopying, and commercial art and graphic design.

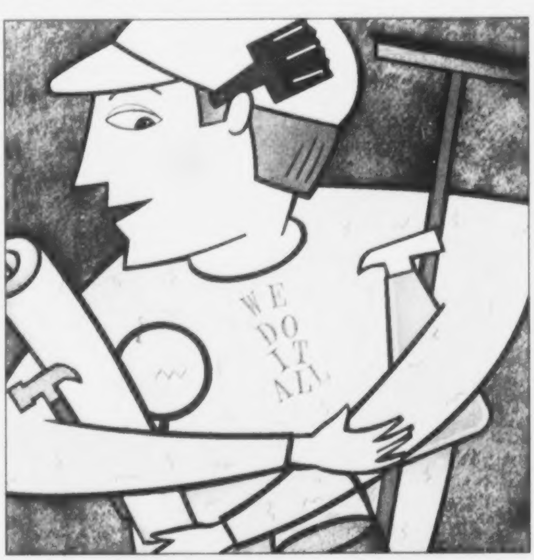
As business owners and managers, printers have occasion at one time or another to buy services from most of the types of vendor we are discussing. And they return the favor. Printed materials are vital to any service business, and these companies buy $.75 billion of commercial printing a year.

Peter Johnston
Special Projects Manager

These enterprises provide various types of services for other businesses.

The health of these businesses varies from field to field, and are affected differently by the economy; collection agencies, like bankruptcy lawyers, often flourish in a recession, and business services as a whole have benefited from the recent trend toward "downsizing" (i.e., layoffs and firings) in American business. Small private firms have replaced the functions of what were once corporate departments.

That being the case, we might expect to see the Business Services segment doing rather well these days. And in general it is; the entire industry group was up in revenues 8.5% for 1991 over 1990, well ahead of the general economy. Direct mail advertising was up 10.9%, and volume for employment agencies increased 19.7% for the year. Some were less fortunate; ad agency revenues were up only 3.5%, and both detective agencies (-0.7%) and photofinishing laboratories (-2.4%) showed declines for the period.



Annie Gusman

Each article in this yearlong series also contains news on the commercial printing industry in one geographic region; this month we profile the West North Central (Minnesota, Iowa, Missouri, Nebraska, Kansas, and the Dakotas).

Reprints of this article may be ordered from Cathy Dionne, Cahners Publishing, Reprint Department, 1350 E. Touhy Ave., Des Plaines, IL 60018; telephone (800) 523-9654. Canadian readers please call (708) 390-2777.

Business Services at a Glance

Business services is primarily comprised of small firms: the average number of employees per establishment is 17, and the mean number of employees is closer to seven or eight. Though dwarfed by industries like retailing (12 million employees) or restaurants (six million), business services, with a quarter of a million establishments and well over four million employees, is one of the larger sectors of the U.S. economy.

Total Establishments: 250,527
Employees: 4,385,365
Total Annual Payroll: $77,999,320

Source: U.S. Department of Commerce, County Business Patterns

Trends & Forecasts, Selected Business Services

Business services is not one industry but a conglomeration of industries with certain characteristics of their customer base in common. As we can see from a glance at the accompanying statistics, growth in sales—not, perhaps, the best measurement of business health, but the most widely available—varied widely over the period on 1990 to 1991. Accounting and consulting flourished, while advertising barely matched inflation.

Receipts, $ millions

Business Service	*1987*	*1988*	*1989*	*1990*	*1991*
Accounting, Auditing, & Bookkeeping	$26,612	$29,695	$33,303	$37,500	$42,250
Advertising	16,803	18,340	19,023	19,944	21,000
Executive Search	2,200	2,500	2,900	3,250	3,650
Management, Consulting, & Public Relations	44,252	52,528	57,324	63,000	69,500

Percentage Increase, Year-to-Year

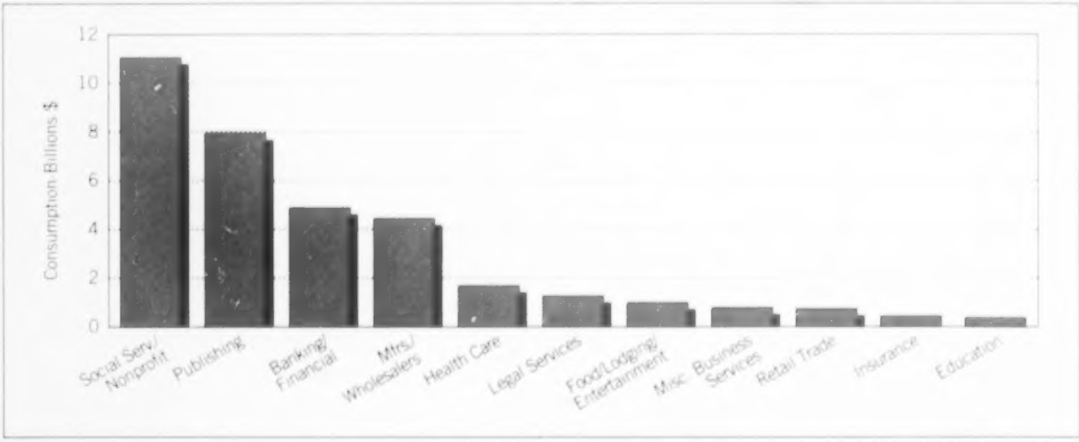
Business Service	*1988-89*	*1989-90*	*1990-91*
Accounting, Auditing, & Bookkeeping	12.2%	12.6%	12.7%
Advertising	3.7%	5.1%	5.5%
Executive Search	16.0%	12.1%	12.3%
Management, Consulting, & Public Relations	9.1%	9.9%	10.3%

Source: U.S. Industrial Outlook (Dept. of Commerce)

Charts and graphs by Annabelle Carter

Ranking of the Print Target Markets

Industries to be covered in the Print Target Markets series in 1992 were selected from a DRI/McGraw-Hill listing of the largest purchasers of goods and services from commercial printers. This list was further refined by the editors, primarily by the elimination of industries that are not logical targets for small to medium-size commercial printers. The resulting list represents more than a third of all business-to-business printing sales.

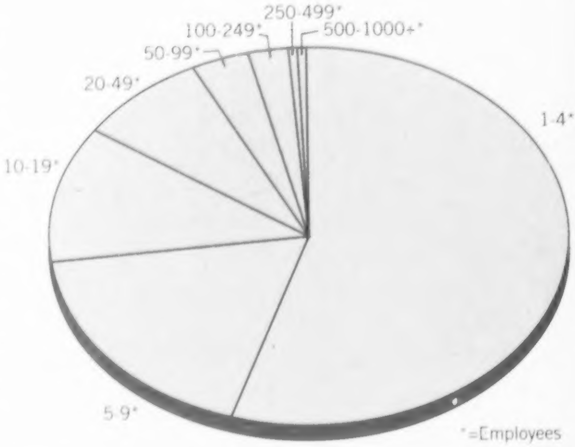


Business Services Companies by Employee Size

This industry group is structured almost exactly like the printing industry. Fully 85% of business services firms have fewer than 20 employees, and 73.3% have fewer than 10. At the other end, fewer than 1% have over 250 employees. These are small, privately held, entrepreneurial ventures with working management. Sound familiar?

1-4 Employees	137,981	55.1%
5-9 Employees	45,486	18.2%
10-19 Employees	29,424	11.7%
20-49 Employees	20,170	8.1%
50-99 Employees	8,704	3.5%
100-249 Employees	6,265	2.5%
250-499 Employees	1,727	0.7%
500-999 Employees	569	0.2%
1000+ Employees	201	0.08%

Source: U.S. Department of Commerce, County Business Patterns



Industry Structure

Business services, though a somewhat ragtag collection, break down logically into the different areas in which one company might employ another to do something for it: publicizing (advertising and PR), paper handling (mailing, reproduction, stenographic), counting and collecting money (accounting, collections), assessing risk (credit reporting), keeping up the physical plant (services to buildings), finding employees (personnel supply services), creating and maintaining computer systems (computer and data processing services, and, inevitably, miscellaneous business services. This latter category includes detectives (including fingerprinters, guard dog services, armored cars, etc.), news syndicates, photofinishing laboratories, and anything else you can imagine, from mapmakers to racetrack cleaners.

Finally, there is a large (nearly 20% of the total industry group) segment identified only, in the Commerce Department's rather hermetic fashion, as "Business services, not elsewhere classified." This is the repository for very, very specialized enterprises—writers of Amiga-based business software, crash numbering machine repairmen, clarinet mechanics, etc.

Category	Number of Establishments
Advertising	17,909
Credit Reporting and Collection	6,687
Mailing, Reproduction, Stenographic	25,249
Services to Buildings	44,036

Category	Number of Establishments
Equipment Rental & Leasing	24,036
Personnel Supply Services	24,421
Computer and Data Processing Services	37,894
Miscellaneous Business Services	60,468

Source: County Business Patterns

Regional Distribution–Business Services Revenues

Region	1990 Receipts ($ million)	%, U.S.Total
New England	$20,708.1	6.0%
Mid-Atlantic	68,336.7	19.8%
East North Central	48,664.0	14.1%
West North Central	18,982.4	5.5%
South Atlantic	49,699.4	14.4%
East South Central	12,424.9	3.6%
West South Central	39,690.5	11.5%
Mountain	18,637.3	5.4%
Pacific	67,991.6	19.7%

Sources: U.S. Statistical Abstract supplements; 1991 Census of Services, Department of Commerce

Key to Regions

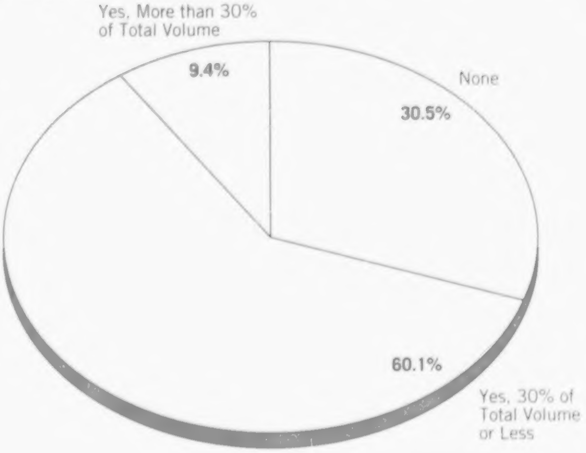
The nine geographic regions, as referred to throughout this survey:

New England (NE): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **Mid-Atlantic (MA):** New Jersey, New York, Pennsylvania. **South Atlantic (SA):** Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia. **East South Central (ESC):** Alabama, Mississippi, Kentucky, Tennessee. **East North Central (ENC):** Illinois, Indiana, Michigan, Ohio, Wisconsin. **West North Central (WNC):** Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. **West South Central (WSC):** Arkansas, Louisiana, Oklahoma, Texas. **Mountain (M):** Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Pacific (P):** Alaska, California, Hawaii, Oregon, Washington.

Does Your Firm Do Work for Business Services Companies?

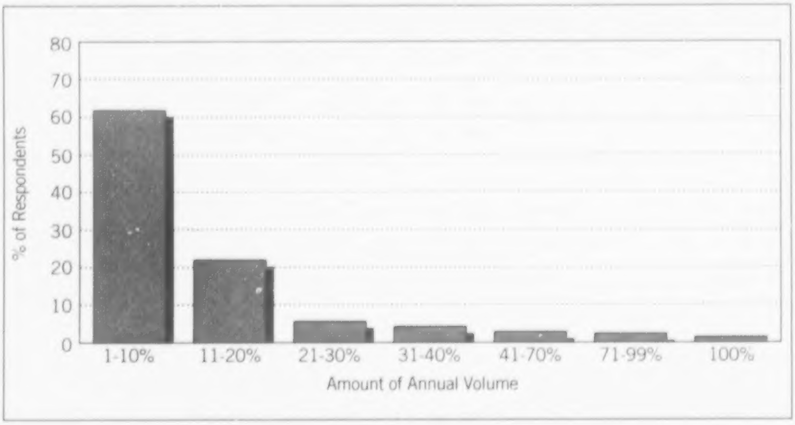
To measure the breadth of the impact of the business services industry on commercial printing, small and medium-sized commercial printers across the country were surveyed for this article. Printers to be surveyed were selected on a random (every nth name) basis from the current circulation list of Graphic Arts Monthly. Almost 70% of printers responding to the survey reported doing at least some work for business services companies.

Almost all the printing generated by this industry is captured by commercial shops. Unlike other industries we have studied, such as insurance and education, in-plant printing is a negligible (indeed, almost nonexistent) factor in business services.

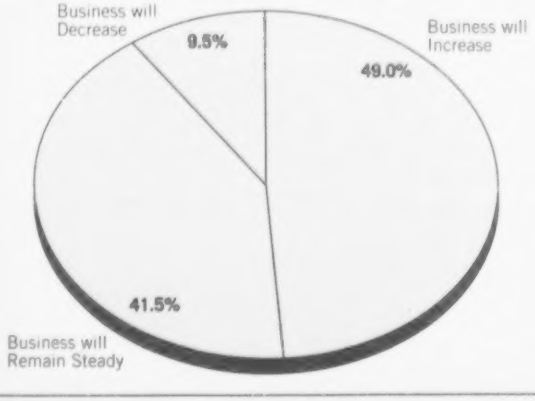


If So, How Much of Your Annual Volume is for Business Services?

Over 13% of the printers surveyed for this article reported deriving 30% or more of their annual revenues for business services companies. Given the number and ubiquity of these firms, this is not surprising; in fact, the figure (61.7%) for printers obtaining 10% or less of their revenues from this source seems a bit surprising. Less surprising is the fact that for about 4% of those responding, business services customers provide more than 70% of sales; just over 1% derive all their revenues from this source.



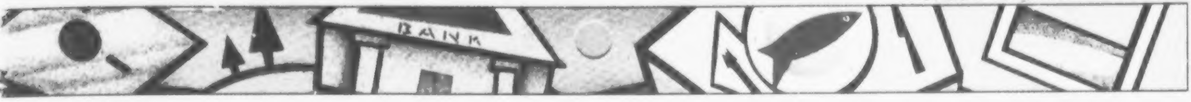
Over the next 12 months, what do you feel will happen to your share of business here?



Printer-Supplied Products for Business Services

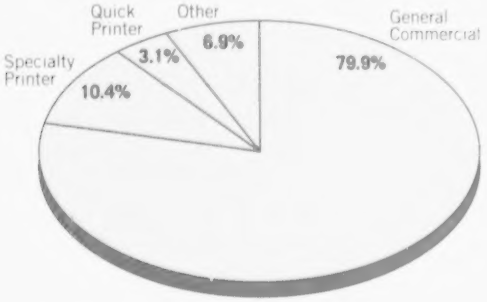
As with all the other industries studied, practically all commercial printers doing work for business services companies report printing stationery and business forms for them. Advertising printing is also brisk for this segment, which in virtually every specialty is quite competitive. It is worth noting that over a third of printers reporting perform some non-printing services for these customers.

Stationery and Business Cards	81.3%
Business Forms	75.2%
Advertising Sheets, Pamphlets, or Brochures	69.2%
Unbound Non-Advertising Material	42.1%
Miscellaneous Non-Printing Services	34.1%
Bound Publications	22.4%



Regional Update/West North Central

Type of Company



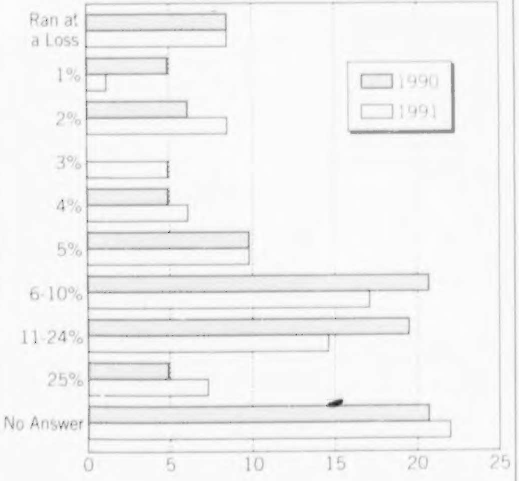
Profile of Respondents

Commercial printers in the upper Midwestern states responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area.

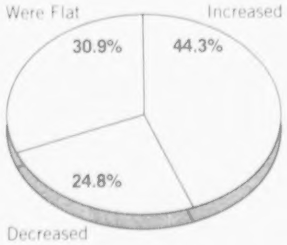
Gross Sales in 1991	
Less than $500,000	67.9%
$500,000-749,999	11.3%
$750,000-999,999	3.8%
$1 million-2,499,999	11.3%
$2,500,000-4,999,999	1.9%
$5 million +	0%

# of Employees	
1-4	48.8%
5-9	34.1%
10-19	11.0%
20 or more	4.9%

Profit as a Percent of Gross Sales, 1990



How Sales Changed, 1990 to 1991



1990 to 1991	
Sales Increased	42.7%
Sales Decreased	23.2%
Sales Were Flat	29.3%

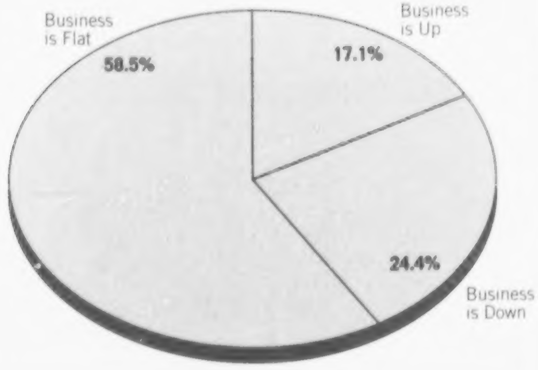
If Sales Increased 1990-1991, How Large Was Increase?

Less than 5%	14.3%
5-10%	28.6%
11-20%	28.6%
21-30%	14.3%
31-50%	5.7%
More than 50%	5.7%

If Sales Decreased 1990-1991, How Large Was Decrease?

Less than 5%	21.1%
5-10%	52.6%
11-20%	15.8%
21-30%	5.3%
31-50%	0%
More than 50%	0%

Perception Index



Comments by Printers

- Very unstable; [we have] low profit margins because of price cutting.
- Eastern Iowa is healthy.
- New business startups are down, established business [is] cautious; the market is flooded with printers.
- Large sheetfed and web printers must seek business in other regions.
- Specialty printing will always be around, though desktop is eroding job printing. Survival motto: adjust and overcome.
- We are discovering the need to be creative in finding/servicing new markets.

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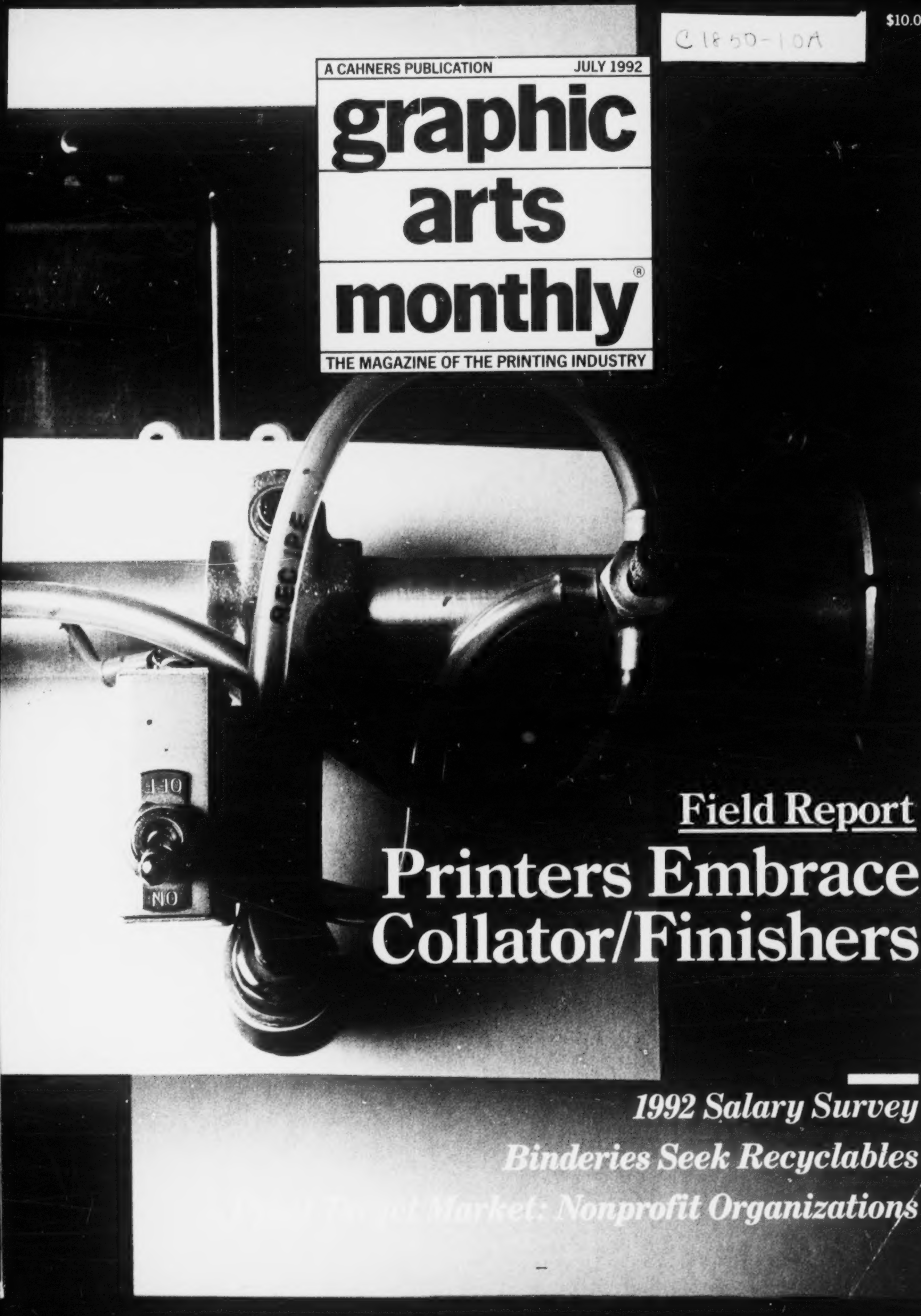

Field Report

Printers Embrace Collator/Finishers

1992 Salary Survey

Binderies Seek Recyclables

[illegible] Target Market: Nonprofit Organizations

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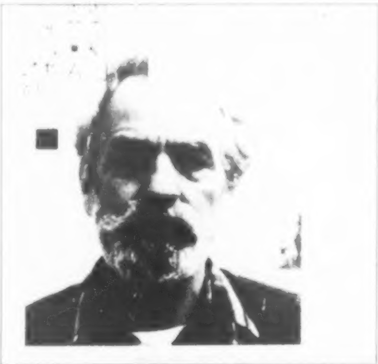

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Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken, Lisa Cross

Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston (212) 932-3368

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
Dick Gorelick, George Griffin, Gerald A. Silver, Nancy Plowman, Theodore Lustig, Michael J. Ducey, Deborah Selsky (Economics)

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager
Richard Negri (212) 463-6827

Business Manager Jerry Arotsky

Contracts Jeffrey Rothstein

Production Manager
Daniel Coakley (212) 463-6545

Promotion Manager
Dorian Torregrossa

Research Manager Cathy Hoey

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Bulk Reprints Carol Bien
1-800-323-4958

Supplement Reprints Cathy Dionne
1-800-523-9654

Circulation Manager
Carol Ann Wilmes (303) 270-0207

Subscriptions/Back Issues
1-800-637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6530

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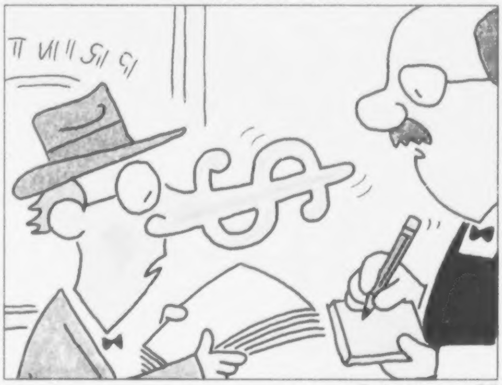

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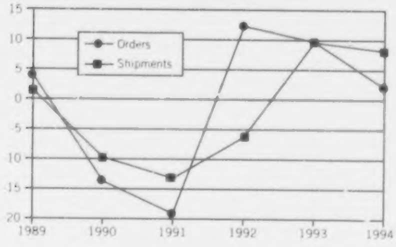
Machinery Orders To Recover in '92



Printing Machinery

annual % change

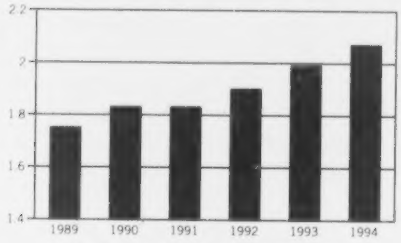
Source: NPES

Forecast: Cahners Economics

The year-end 1991 numbers are in for graphic arts machinery orders and shipments, and they are about as bad as expected. According to data collected by the Association for Suppliers of Printing and Publishing Technologies (NPES), machinery orders fell nearly 20%, and shipments dropped 13.3% last year. This data is based on a survey of the association's membership, which represents most but not all of the industry. Last year, a large company dropped out of the survey, making the data look even worse than actual.

Nonetheless, the combination of 1990 and 1991 was the worst period for machinery sales since the data was first collected. On the bright side, the last several months of data show that orders are turning around. Cahners predicts that orders will rise over 12% in 1992, followed by strong but slower growth in 1993 and 1994. Shipments will decrease another 6.4% this year before posting solid gains in the upcoming years.

Supply Shipments Flatten in 1991



Printing Supplies Shipments

Billions of $

Source: NPES

Forecast: Cahners Economics

Despite showing the first quarterly declines in four years, shipments of graphic arts supplies managed to squeak out a 0.1% rise in 1991. In the last few months of the year, supplies shipments managed to post solid gains which pulled sales up for the year-end and set the stage for an upturn in 1992. In the third and fourth quarters of 1991, shipments rose 1.1% and 3.3%, respectively, above the previous year's levels. These gains came on top of two consecutive quarters of decreases.

Supplies showing the most significant declines were phototypeset and photo transfer papers, while lithographic plates showed gains. The upcoming recovery will not be as strong as previous recoveries. After almost flat growth in 1987, printing supplies shipments came back strong and averaged gains of 5.5% in the following two years. This time, however, Cahners expects supplies shipments to rise 3.6% in 1992 and 4.7% in 1993.

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The latest release from the Bureau of Labor Statistics reports that the recessionary effects on total employment during 1991 were originally overestimated. In fact, the number of jobs lost were undercounted by about 640,000. This explains why consumers felt the recession was much worse than the numbers reflected. The revisions to the employment data go back to 1987 and will certainly have some effect on the printing industry. For now, employment continues to look grim and we anticipate a slight 0.4% rise in 1992.

SUPPLY INDICATORS

				Annual Percent Change			
Employment (1)	**Mar 91**	**Feb 92**	**Mar 92**	**1991**	**1992**	**1993**	**1994**
Printing & publishing	1547.7	1514.8	1517.2	–2.3	0.4	2.9	2.5
Commercial printing	544.0	533.9	535.9	–2.4	0.5	3.3	2.8
Productivity (2)							
Printing & publishing	103.6	107.9	107.5	4.2	2.6	2.8	2.1
Average Hourly Earnings (3)							
Printing & publishing	11.36	11.60	11.69	2.2	2.5	2.9	3.0
Commercial printing	11.66	11.80	11.92	2.1	1.9	2.9	2.8
	Q4/90	**Q3/91**	**Q4/91**	**1991**	**1992**	**1993**	**1994**
Graphic Arts Machinery (4)							
New orders	134.5	120.2	111.5	–19.1	12.3	9.7	2.1
Shipments	146.3	118.3	125.9	–13.2	–6.3	9.6	8.2
Graphic Arts Supplies (4)							
Shipments	156.5	153.3	161.7	0.1	3.6	4.7	4.0

(1) Thousands of employees. U.S. Dept. of Labor. (2) Index: 1987 = 100. Cahners Economics. (3) Dollars per hour: U.S. Dept. of Labor. (4) Index: 198_ = 100. National Printing Equipment and Supplies Association.
All forecasts by Cahners Economics

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Nonprofits Are Lucrative for Print

Brochures and direct-mail top the needs of this eclectic print market.

By Peter Johnston
Special Projects Manager

If you take a look at the list of Print Target Markets inside the gatefold, you will see that social service and nonprofit organizations is the single largest category. These groups buy more than $11 billion in commercial printing a year.

Social Service/Nonprofits is a big umbrella which takes in a wide variety of enterprises and organizations.

The "social service" part of it comes from the fact that many of the society's services in matters of health and, in the widest sense of the term, welfare, are provided by private organizations, not by the government. Some have been around so long and are so pervasive that we tend to think of them as having some sort of official status: the ASPCA, the American Cancer Society, the Salvation Army, the Red Cross, etc. However, they are all private, and part of this month's legion of print buyers.

Most of the rest of the category consists of membership organizations having some noncharitable function. One large group is industry associations; in our own industry we have PIA, NAPL, NPES, and a number of more specialized groups. Every other industry has at least one and in most cases several organizations doing what industry associations do: providing information, putting on trade shows, and lobbying Congress.

Annie Gusman

Another big segment is civic and social organizations: the Elks, the Campfire Girls, etc. There are also political organizations, labor organizations, professional groups (doctors, lawyers), and noncommercial research organizations. The largest subgroup is religious organizations, of which there are almost 127,000.

To a great degree , printing is the lifeblood of social service and nonprofit organizations. Whatever they do, they depend on letting their members know what they are doing and soliciting memberships and donations in order to continue doing it.

This requires an extensive direct-mail effort, which is one area in which nonprofits are heavy printing buyers. Also, many groups publish periodicals for their members, as well as instructional materials, ranging from brochures to multivolume casebound books.

Subject of this month's Regional Update: the East South Central (Tennessee, Kentucky, Alabama, and Mississippi).

Reprints may be ordered from Cathy Dionne, Cahners Publishing, Reprint Dept., 1350 E. Touhy Ave., Des Plaines, Ill., 60018. Call (800) 523-9654 in the U.S.; (708) 390-2777 in Canada.

Nonprofit Organizations at a Glance

The importance of the social service/nonprofit sector is not clearly revealed by these statistics, which deal only with offices and other full-time facilities, and with salaried staff. The real clout comes from membership. To give just one example, every employee who donates to United Way—a vast proportion both of corporate America and of public employment such as the armed forces—is also a member of that organization.

Total Establishments: 219,646
Employees: 1,893,457
Total Annual Payroll: $21,681,049,000

Source: U.S. Department of Commerce, County Business Patterns.

Growth Patterns, Selected Nonprofits

The most recent available statistics coincide with the boom of the 1980s and are thus probably a little misleading. In a recession, expenditures made as a matter of course during boom times, such as association dues and charitable donations, tend to be reduced. Also, government has sharply reduced its spending on social services during the last decade; private organizations have taken up some slack, thus altering their spending patterns.

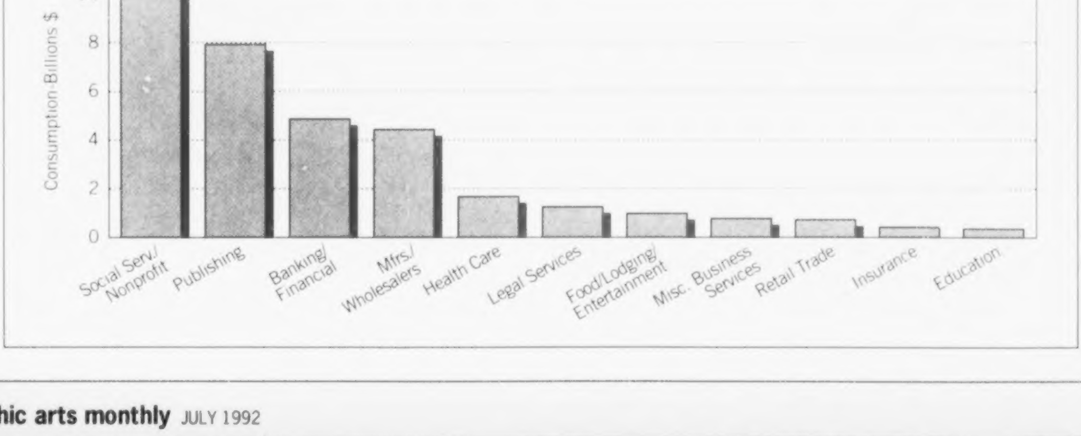
Number of Establishments

Type of Organization	*1982*	*1987*	*Change*
Museums, Zoos, Botanical Gardens	2,415	2,695	11.6%
Selected Membership Organizations	63,213	67,997	7.6%
Business Associations	12,407	12,299	-0.8%
Civic/Social/Fraternal Orgs.	36,639	48,415	32.1%
Other Membership Organizations	14,147	15,283	8.0%
Expenses (000)	*1982*	*1987*	*Change*
Museums, Zoos, Botanical Gardens	$1,203,080	$1,987,229	65.2%
Selected Membership Organizations	$15,092,862	$22,028,411	46.0%
Business Associations	$4,650,881	$6,581,649	41.5%
Civic/Social/Fraternal Orgs.	$5,557,498	$8,001,026	44.0%
Other Membership Organizations	$4,884,483	$7,445,736	52.4%

Charts and graphs by Annabelle Carter

Ranking of the Print Target Markets

Industries to be covered in the Print Target Markets series in 1992 were selected from a DRI/McGraw-Hill listing of the largest purchasers of goods and services from commercial printers. This list was further refined by the editors, primarily by the elimination of industries that are not logical targets for small to medium-size commercial printers. The resulting list represents more than a third of all business-to-business printing sales.

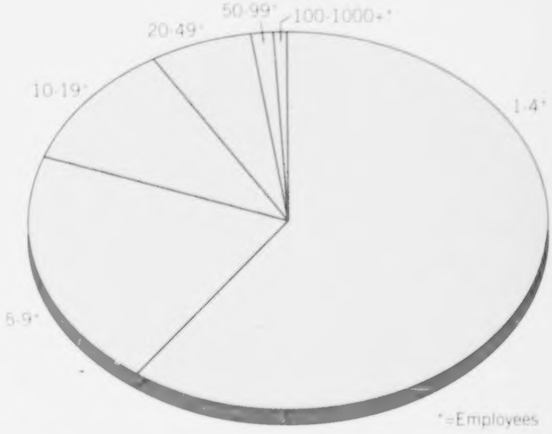


Nonprofit Organizations by Employee Size

Shown is an exaggerated version of the pattern found in the for-profit sector. About 77% of all establishments have fewer than 20 employees; for nonprofit organizations, the figure is 92%. The prominence of the large and well-known nonprofits is underscored by how few of them there are; most are highly specialized and very small.

Size	Establishments	Percent
1-4 Employees	131,888	60.1%
5-9 Employees	45,386	20.7%
10-19 Employees	23,562	10.7%
20-49 Employees	13,817	6.3%
50-99 Employees	3,335	1.5%
100-249 Employees	1,245	0.6%
250-499 Employees	247	0.1%
500-999 Employees	92	0.04%
1000+ Employees	28	0.01%

Source: U.S. Department of Commerce, County Business Patterns



Nonprofit Organizations–Categories

Most industries have a rational structure (e.g., raw materials, processing, manufacture, and marketing) governed at least to some extent by consumption and potential profitability, that is, by supply and demand. The "structure" of the nonprofit sector arises out of something much more complex, i.e., the impulse of human beings to gather together for reasons other than making money. The Commerce Department's categories here are an exercise in taxonomy: we group similar things together, count them, and give them names. Far and away the largest category (almost 58% of the total) is religious organizations; civic and social associations (17.8%) run a distant second, followed by labor organizations (9.1%) and business associations (5.5%). (These latter two exist at least partly to keep an eye on each other.) The other categories, in declining order by number of establishments, are other membership organizations, professional organizations, museums and art galleries, noncommercial research organizations, political organizations, and zoos and botanical gardens.

Category	Number of Establishments
Museums and Art Galleries	2,714
Botanical and Zoological Gardens	274
Business Associations	12,032
Professional Organizations	5,449
Labor Organizations	20,046

Category	Number of Establishments
Civic and Social Associations	38,981
Political Organizations	1,285
Religious Organizations	126,823
Membership Organizations, Other	9,459
Noncommercial Research Organizations	2,352

Source: County Business Patterns

Regional Distribution–Nonprofit Organizations

Region	Nonprofit Organizations	%, U.S.Total
New England	12,819	5.8%
Middle Atlantic	35,389	16.1%
East North Central	34,912	15.9%
West North Central	15,311	7.0%
South Atlantic	35,665	16.2%
East South Central	10,740	4.9%
West South Central	23,420	10.7%
Mountain	12,866	5.9%
Pacific	38,413	17.5%

Sources: U.S. Statistical Abstract supplements; 1991 Census of Services, Department of Commerce

Key to Regions

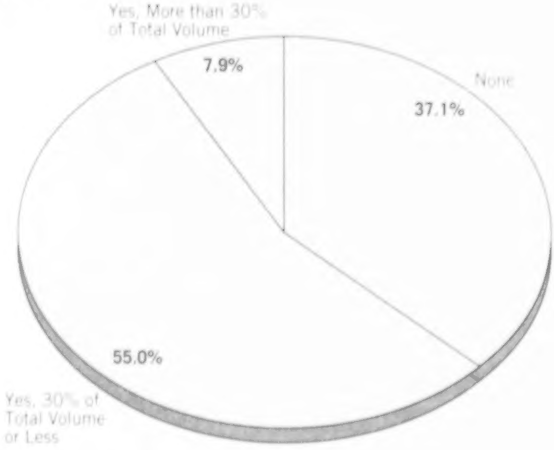
The nine geographic regions, as referred to throughout this survey:

New England (NE): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **Mid-Atlantic (MA):** New Jersey, New York, Pennsylvania. **South Atlantic (SA):** Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia. **East South Central (ESC):** Alabama, Mississippi, Kentucky, Tennessee. **East North Central (ENC):** Illinois, Indiana, Michigan, Ohio, Wisconsin. **West North Central (WNC):** Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. **West South Central (WSC):** Arkansas, Louisiana, Oklahoma, Texas. **Mountain (M):** Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Pacific (P):** Alaska, California, Hawaii, Oregon, Washington.

Does Your Firm Do Work for Nonprofit Organizations?

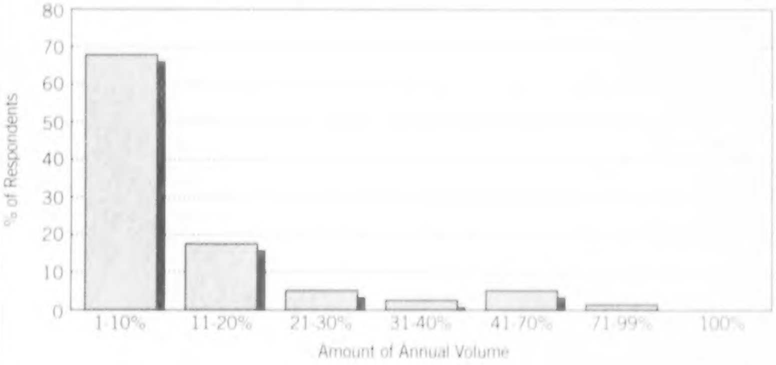
To measure the breadth of the impact of social service and nonprofit organizations on commercial printing, small and medium-sized commercial printers across the country were surveyed for this article. Printers to be surveyed were selected on a random (every nth name) basis from the current circulation list of GRAPHIC ARTS MONTHLY. More than 60% of printers responding to the survey reported doing at least some work for nonprofits.

Though some of the larger groups, among them religious organizations such as Jehovah's Witnesses and the Church of Jesus Christ of Latter-Day Saints, have extensive in-plant printing facilities, most of the printing generated by this sector is captured by commercial shops.

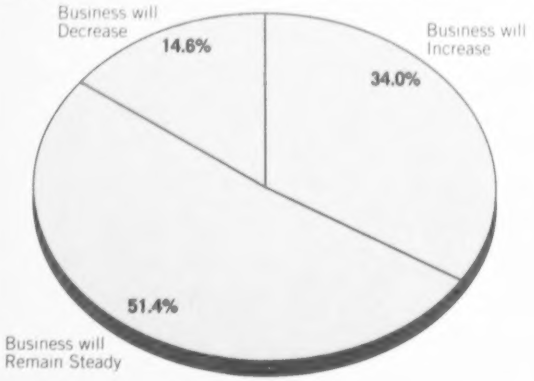


If So, How Much of Your Annual Volume is for Nonprofit Organizations?

Most printers who do work for nonprofit organizations derive a relatively small proportion of their annual sales from them; almost 68% do no more than 10% of their work for nonprofits, and fewer than 15% of the total have sales to nonprofits accounting for more than 20% of total volume. Though many nonprofits are national in scope, they tend to be clustered near large cities; regionally, the New York and Chicago metropolitan areas report a high incidence of printing for nonprofits, as does the Pacific region.



Over the next 12 months, what do you feel will happen to your share of business here?



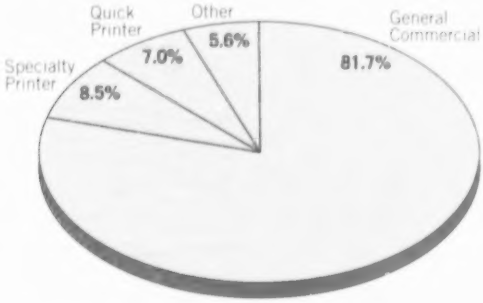
Printer-Supplied Products for Nonprofits

As in the for-profit sector, the majority of commercial printers doing work for nonprofit organizations report printing stationery and business forms for them. Advertising printing is also brisk for this segment. Bound publications are done more often for this segment than for many others, again as expected. Unbound non-Advertising material—information sheets, leaflets, etc.—are a major component of the work done for nonprofit organizations.

Stationery and Business Cards	71.5%
Business Forms	53.4%
Advertising Sheets, Pamphlets, or Brochures	71.0%
Unbound Non-Advertising Material	42.0%
Miscellaneous Non-Printing Services	28.0%
Bound Publications	28.0%

Regional Update/East South Central

Type of Company



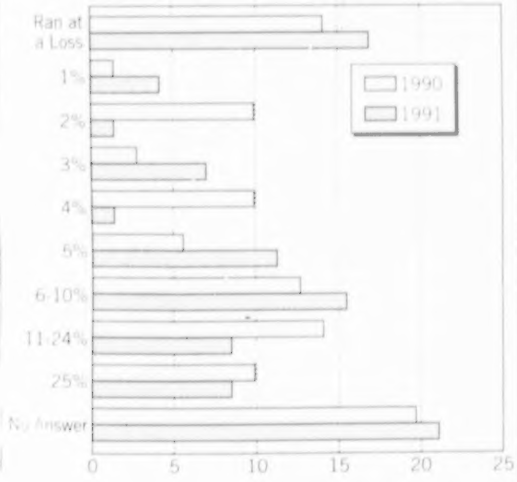
Profile of Respondents

Commercial printers in Tennessee, Kentucky, Alabama and Mississippi responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area.

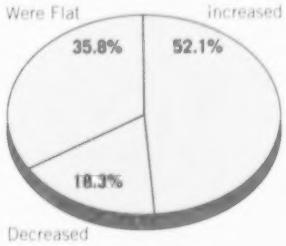
Gross Sales in 1991	
Less than $500,000	84.5%
$500,000-749,999	5.6%
$750,000-999,999	7.0%
$1 million-2,499,999	0%
$2,500,000-4,999,999	1.4%
$5 million+	0%

# of Employees	
1-4	40.8%
5-9	45.1%
10-19	12.7%
20 or more	1.4%

Profit as a Percent of Gross Sales, 1990



How Sales Changed, 1990 to 1991

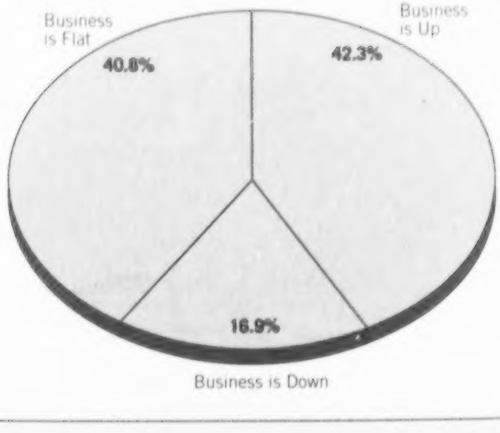


1990 to 1991	
Sales Increased	52.1%
Sales Decreased	18.3%
Sales Were Flat	35.8%

If Sales Increased 1990-1991, How Large Was Increase?	
Less than 5%	16.2%
5-10%	27.0%
11-20%	35.1%
21-30%	2.7%
31-50%	8.1%
More than 50%	8.1%

If Sales Decreased 1990-1991, How Large Was Decrease?	
Less than 5%	30.8%
5-10%	23.1%
11-20%	30.8%
21-30%	7.7%
31-50%	0%
More than 50%	0%

Perception Index



Comments by Printers

- Printers must get a handle on pricing; they are hurting themselves.
- Sales have increased, but revenues are down. Customers are taking longer to pay, from 30 days to as much as 90 days.
- We have grown steadily for the past six years and expect a profit this year.
- We previously made profits from designing, typesetting, and layout. This has declined because of [the impact of] personal computers.
- Business is showing small signs of returning to normal. It has been depressed since October 1991.
- We hope the economy will pick up.

1992 SALARY SURVEY

Printers Curb Pay Increases

Even in the biggest printing companies, salaries stood still this year. The results of the 1992 Salary Survey show an interesting consensus among printers: holding employee raises down, or deferring them, is sound (and common) financial planning.

Survey respondents indicated that they were viewing the prospects of employee compensation in a more conservative light than recent years. When asked what action(s), if any, printers had taken or were planning to take in regard to salary increases in 1992, 33.5% said they were giving smaller increases than normal, nearly 30% decided to give no raises to its staff across the board, and 12% opted to withhold raises in certain positions.

With respect to the 24 individual job classifications featured, the data show no real change since 1991, but rather predominant stagnation. Nine job categories witnessed a decrease in salaries from 1991 levels, 11 jobs reflected increases, and two showed no change from the previous year's pay level. In the two new categories added to the 1992 survey—Art/Design Department Foreman and Electronic Prepress Department Foreman—no comparison could be made with 1991 results.

A look at the past few years' Salary Survey results further illuminates the trend toward stagnation: in 1990, overall salary increases when averaged were 33% above the previous study; in 1991 the average percentage change was approximately 7%; and this year the change was barely measurable (less than 1%). The respondents vary from year-to-year so these comparisons merely detect general trends in the industry and do not represent annual changes of a particular sample.

But slow income growth doesn't dog our industry alone. The Bureau of Economic Analysis reports that national per-capita personal income has steadily declined over the past three years. Moreover, last year, according to Cahners Economics, price inflation was higher than the increase in per-capita income for the first time since 1982.

Stagnant pay levels transgress regional boundaries of the continent as well. When average base salaries were compared by geographical region with those regions in previous GAM studies, the percentage change is typically insignificant.

What proved interesting, however, is how the titles of "best" and "worst" paying regions migrated across the country. At the bottom of the ranking this year, reporting the lowest salaries in 13 of the 24 titles, was the South Atlantic (Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia).

As for the highest paying region, the winner was less distinguishable; East South Central (Alabama, Kentucky, Mississippi, Tennessee) topped just six of the categories.

The complete results of the survey are presented in the detachable, double-gatefold form appearing opposite this page. Questionnaires were sent to a random sample of 2,000 GAM readers plus the top 101 companies comprising the GAM 101. A total of 379 firms completed and returned the survey, for a response rate of 18%. ▤

By Bridget Kinsella Arajs
Associate Editor

Salaries Take a Beating

Respondents reported the following actions:	
Smaller increases than normal	33.5 %
No raises across the board	29.8
No raises for certain positions	12.1
Salary cuts	5.0
Normal increases/all got raises	3.2
No action taken	11.6

Note: Including negligible percentages for several miscellaneous responses, which are not shown in this table, total exceeds 100% because of multiple responses.

1992 SALARY SURVEY

	1992 National Average	% Change From 1991 ***	AVERAGE SALARIES: By Region (See Key) Lowest	By Region (See Key) Highest	By Employee Count: Less than 10	By Employee Count: 200 or more	By Company Revenue: Less than $500,000	By Company Revenue: $20 million or more
MANAGEMENT STAFF								
Chairman of the Board	$163,200	+ 12.5	$86,000 (SA)	$216,500 (ESC)	$25,000	$334,400	$28,000	$335,700
President/Owner/CEO	71,100	+ 2.9	49,300 (SA)	86,000 (ESC)	40,700	210,200	35,700	208,700
General Manager	58,200	+ 1.2	47,600 (SA)	101,700 (WSC)	30,300	120,000	31,300	131,100
VP–Sales/Marketing	69,400	– 9.6	39,700 (SA)	88,300 (WNC)	30,500	110,600	28,800	112,700
VP–Finance	66,300	– 8.0	34,200 (M)	102,100 (ESC)	24,700	90,100	39,700	93,100
VP–Manufacturing	67,900	– 9.9	42,000 (NE)	105,000 (WSC)	35,000	92,100	43,200	98,400
OFFICE/FINANCIAL								
Controller	47,300	+ 10.5	26,000 (SA)	58,000 (P)	33,700	60,100	38,800	57,800
Estimator/Planner	34,600	– 4.4	24,300 (SA)	43,000 (MA)	22,900	45,100	25,500	43,200
Office Manager	26,800	+ 5.5	25,100 (MA)	32,600 (NE)	17,600	36,200	18,500	38,600
Human Resources Manager	43,500	– 3.1	31,900 (MA)	64,000 (ESC)	—	48,200	48,800	47,800
Purchasing Agent/Buyer	35,100	– 7.4	26,000 (WNC)	68,300 (NE)	50,000	46,700	52,000	47,600
PRODUCTION MANAGEMENT								
Plant Manager/Superintendent	44,300	+ 1.6	36,800 (SA)	53,500 (NE)	27,400	66,100	30,500	66,500
Production Manager	36,900	+ 8.8	27,700 (SA)	43,300 (ENC)	24,000	56,800	24,100	55,700
Quality Control Supervisor	37,600	– 1.1	26,000 (NE)	46,700 (P)	14,500	41,400	32,500	41,600
Production Scheduler	32,800	0.0	18,300 (SA)	36,700 (MA)	30,900	36,900	21,100	39,000
DEPARTMENT FOREMAN								
Art/Design Foreman	30,900	*	22,000 (ESC)	42,700 (NE)	21,000	60,300	19,500	58,900
Electronic Prepress Foreman	37,500	*	27,300 (MA)	57,500 (WNC)	26,300	48,800	23,800	49,400
Prep Foreman	36,000	+ 1.4	26,100 (SA)	39,800 (MA)	25,400	48,800	24,800	48,800
Press Foreman	34,800	– 0.6	24,600 (SA)	42,400 (ESC)	20,900	54,000	21,600	52,200
Bindery Foreman	32,400	+ 6.2	21,900 (SA)	35,000 (P)	16,900	45,200	20,600	44,800
Maintenance Foreman	36,600	– 10.1	20,000 (M)	44,000 (WSC)	—	44,400	47,300	44,500
SALES/MARKETING								
Sales Manager**	51,400	0.0	32,300 (SA)	69,800 (ESC)	22,700	77,900	26,900	82,100
Sales Representative**	39,100	+ 2.9	26,200 (M)	49,600 (P)	28,500	67,500	29,900	63,300
Customer Service Manager	30,400	+ 0.3	22,500 (SA)	41,400 (WSC)	18,800	42,800	20,500	44,800

*Not measured in 1991 **Base salary only ***Percentage change indicates comparison to 1991 study results.

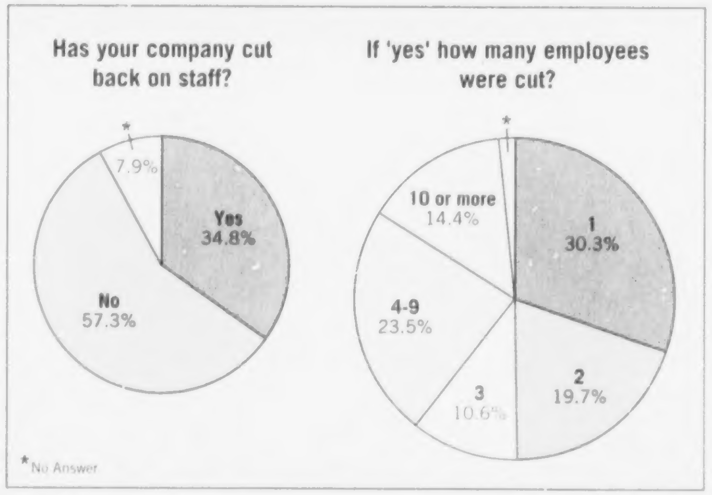
AVERAGE SALARIES BY REGION (SEE KEY)

	New England	Middle Atlantic	South Atlantic	East South Central	East North Central	West North Central	West South Central	Mountain	Pacific
MANAGEMENT STAFF									
Chairman of the Board	$94,500	$143,000	$86,000	$216,500	$98,300	$182,200	$98,500	—	$177,300
President/Owner/CEO	59,300	69,500	49,300	86,000	77,900	84,000	61,200	$58,500	81,200
General Manager	—	47,700	47,600	69,900	55,600	52,400	101,700	48,500	72,500
VP–Sales/Marketing	49,300	62,300	39,700	57,300	74,400	88,300	81,600	51,300	79,000
VP–Finance	—	77,400	38,900	102,100	75,000	38,700	84,800	34,200	68,000
VP–Manufacturing	42,000	62,400	54,600	76,700	76,300	65,800	105,000	75,000	59,800
OFFICE/FINANCIAL									
Controller	56,900	48,200	26,000	46,300	52,500	41,800	45,200	48,500	58,000
Estimator/Planner	35,600	43,000	24,300	36,700	39,800	29,700	33,200	30,600	38,700
Office Manager	32,600	25,100	25,200	25,200	25,300	25,300	26,000	27,200	30,800
Human Resources Manager	45,200	31,900	32,500	64,000	51,100	36,000	49,500	—	45,000
Purchasing Agent/Buyer	68,300	32,500	32,500	55,300	36,600	26,000	38,500	29,700	31,000
PRODUCTION MANAGEMENT									
Plant Manager/Superintendent	53,500	49,800	36,800	50,700	47,400	40,800	37,900	36,800	47,000
Production Manager	32,300	41,100	27,700	40,700	43,300	31,300	36,400	36,100	37,800
Quality Control Supervisor	26,000	43,000	27,200	35,000	42,800	34,400	40,500	—	46,700
Production Scheduler	30,800	36,700	18,300	35,200	32,700	34,500	34,700	25,000	34,700
DEPARTMENT FOREMAN									
Art/Design Foreman	42,700	31,100	26,200	22,000	31,000	22,800	26,000	28,700	30,200
Electronic Prepress Foreman	37,300	27,300	30,000	30,000	40,700	57,500	35,100	28,000	46,000
Prep Foreman	37,200	39,800	26,100	38,700	36,400	34,500	32,800	32,300	38,500
Press Foreman	39,700	34,300	24,600	42,400	38,700	33,800	30,400	28,000	39,400
Bindery Foreman	30,600	30,500	21,900	29,500	35,300	34,300	33,000	31,200	35,800
Maintenance Foreman	28,000	36,000	32,000	37,300	42,600	33,400	44,000	20,000	33,300
SALES/MARKETING									
Sales Manager**	58,500	51,000	32,300	69,800	57,000	48,400	49,100	42,000	65,600
Sales Representative**	37,000	37,000	32,100	45,000	43,100	37,800	32,800	26,200	49,600
Customer Service Manager	35,200	29,700	22,500	25,500	36,600	26,100	41,400	33,000	37,000

PRINTERS WIELD THE AX

In our survey, one printer in three reported a staff cut in the past year; on the other hand, nearly 60% reported no decrease in work force over the previous 12 months. Among printers reporting staff cuts, some 31% cut payroll by just one staff member, yet the average cut in this sample was calculated to be five employees.

While many companies did not cut staff, awarding salary increases showed its own kind of scaling back among the representative companies. Like other industrial employers, printers were more discriminating about awarding annual raises. In regard to salaries in 1992, 34% say they plan to give smaller increases than normal, 30% are not giving any raises across the board, and 13% are not giving raises to certain positions.

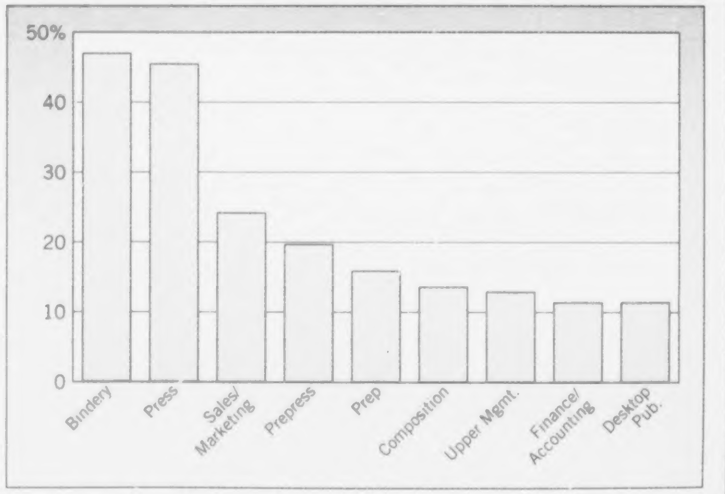


WHERE THEY MADE THE CUTS

When printers elected to pare down their work forces in the past year, they tended to concentrate on the most labor-intensive areas of their plants. Thus, reported the survey respondents, cuts were most often made among staff personnel in the Bindery Department (47%) and in the Press Department (46%).

On the other end of the spectrum, Production, Delivery/Shipping, and Maintenance were all areas that appeared at the bottom of the printers' staff cut list.

The level of employee most likely to be cut within the departments were: Production Operations (69%), Administrative/Support Staff (30%), Salespeople (17%), Production Management (11%), Business Management (8%), and Sales and Marketing Management (8%).



Charts and graphs by Annabelle Carter

COMPILED BY GRAPHIC ARTS MONTHLY

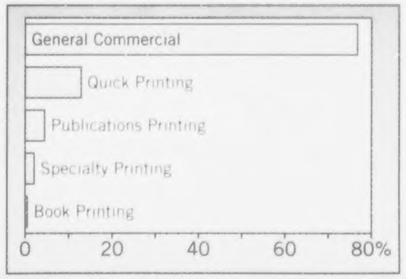
	AVERAGE SALARIES BY EMPLOYEE COUNT							AVERAGE SALARIES BY COMPANY REVENUE					
	Less than 10	10-19	20-49	50-99	100-149	150-199	200 or more	Less than $500,000	000- 999	$1 million-$4.9 million	$5 million-$9.9 million	$10 million-$19.9 million	$20 million or more
MANAGEMENT STAFF													
Chairman of the Board	$25,000	$68,000	$131,200	$163,300	$167,300	—	$334,400	$28,000	7,000	$97,600	$136,600	$140,000	$335,700
President/Owner/CEO	40,700	65,000	92,900	98,300	151,700	$196,700	210,200	35,700	6,100	83,700	109,300	175,600	208,700
General Manager	30,300	48,600	66,500	64,700	90,600	173,400	120,000	31,300	6,500	65,600	58,800	137,500	131,100
VP–Sales & Marketing	30,500	50,000	58,200	70,500	97,900	100,400	110,600	28,800	39,800	58,600	80,800	98,100	112,700
VP–Finance	24,700	33,700	58,900	70,000	68,200	108,300	90,100	39,700	29,200	49,500	82,800	83,600	93,100
VP–Manufacturing	35,000	38,400	60,800	50,000	69,200	91,000	92,200	43,200	50,300	59,400	60,100	70,100	98,400
OFFICE/FINANCIAL													
Controller	33,700	34,100	39,600	47,000	46,500	66,200	60,100	38,800	34,000	41,700	44,300	56,000	57,800
Estimator/Planner	22,900	29,200	34,500	30,100	41,500	47,700	45,100	25,500	26,800	34,100	36,400	42,300	43,200
Office Manager	17,600	28,000	29,800	32,400	34,100	—	36,200	18,500	26,900	29,100	27,200	38,000	38,600
Human Resources Manager	—	17,500	23,000	43,800	42,200	63,600	48,200	48,800	29,300	33,200	40,500	47,200	47,800
Purchasing Agent/Buyer	50,000	24,900	23,700	29,000	42,500	48,200	46,700	52,000	14,600	29,200	31,000	37,500	47,600
PRODUCTION MANAGEMENT													
Plant Manager/Superintendent	27,400	36,200	41,800	50,800	59,700	57,600	66,100	30,500	37,100	40,700	50,700	50,300	66,500
Production Manager	24,000	32,900	38,800	42,100	45,100	45,500	56,800	24,100	32,600	36,500	45,600	44,300	55,700
Quality Control Supervisor	14,500	33,500	30,600	40,300	41,000	48,000	41,400	32,500	18,000	34,400	35,000	39,700	41,600
Production Scheduler	30,900	21,000	28,700	30,300	38,500	39,000	36,900	21,100	18,600	35,100	29,200	35,200	39,000
DEPARTMENT FOREMAN													
Art/Design Foreman	21,000	26,000	26,100	35,300	34,000	36,500	60,300	19,500	24,200	29,000	36,600	36,400	58,900
Electronic Prepress Foreman	26,300	29,300	26,700	30,600	43,300	43,200	48,800	23,800	29,400	32,000	31,200	40,200	49,400
Prep Foreman	25,400	28,800	35,200	37,100	45,800	40,100	48,800	24,800	28,800	34,100	38,900	43,700	48,600
Press Foreman	20,900	31,500	37,500	38,700	45,800	48,800	54,000	21,600	34,000	34,600	39,500	46,800	52,200
Bindery Foreman	16,900	24,800	30,200	34,500	42,800	38,300	45,200	20,600	23,900	30,600	35,200	39,400	44,800
Maintenance Foreman	—	20,000	26,800	26,400	36,800	32,700	44,400	47,300	—	20,900	24,900	36,300	44,500
SALES/MARKETING													
Sales Manager	22,700	28,700	59,500	53,500	69,600	75,500	77,900	26,900	28,500	56,700	52,900	72,100	82,100
Sales Representative	28,500	27,400	37,700	42,300	59,400	—	67,500	29,000	26,800	35,700	46,700	52,500	63,300
Customer Service Manager	18,800	22,400	23,600	30,700	46,600	38,300	42,800	20,500	24,700	24,400	30,600	39,800	44,800

FACTS ABOUT THE SURVEY

In late March, a two-page questionnaire was mailed to a sample group consisting of 2,000 printers selected on an Nth name basis from GRAPHIC ARTS MONTHLY's controlled circulation of readers, plus the 101 largest printers in North America that comprise the GAM 101 ranking.

This fourth consecutive annual Salary Survey includes 24 individual job categories. Two new job classifications were added this year: Art/Design Department Foreman and Electronic Prepress Department Foreman. The Composition Foreman category was eliminated. Respondents were asked to report current annual calender/fiscal year gross salary for each job, not including bonuses, commissions, etc.

A total of 379 printers completed and returned the questionnaire, a response rate of 18%. Of the respondents, 68% have a job title of Owner/President/CEO and 10% are Vice Presidents/Directors/General Managers. More than three-fourths of the responses came from companies primarily engaged in general commercial printing; also, 13% were from companies that claim qu k printing as their primary busine s, and 5% from publication printers. T e sample's average gross sales, r revenues, in 1991 was $3.6 milli . While respondents employ d anywhere from over 200 to under f e employees, 34 was the average s ze work force in the sample.

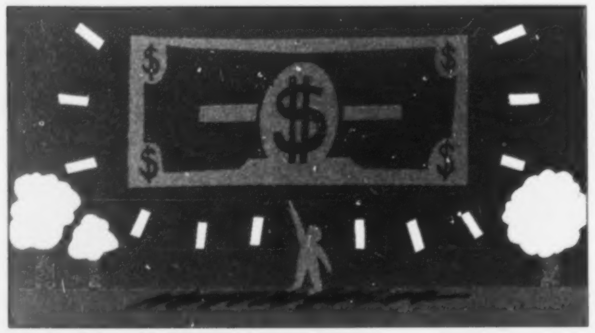


Number of employees at location

Less than 5	27.4%
5–9	24.3
10–19	19.3
20–49	10.8
50-99	7.1
100–149	3.2
150-199	1.1
200 or more	5.5
No answer	1.3

KEY TO REGIONS

The nine geographic regions, as referred to throughout this survey, are as follows: **New England (NE):** Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **Middle Atlantic (MA):** New Jersey, New York, Pennsylvania. **South Atlantic (SA):** Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington D.C., West Virginia. **East South Central (ESC):** Alabama, Kentucky, Mississippi, Tennessee. **East North Central (ENC):** Illinois, Indiana, Michigan, Ohio, Wisconsin. **West North Central (WNC):** Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. **West South Central (WSC):** Arkansas, Louisiana, Oklahoma, Texas. **Mountain (M):** Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Pacific (P):** Alaska, California, Hawaii, Oregon, Washington.



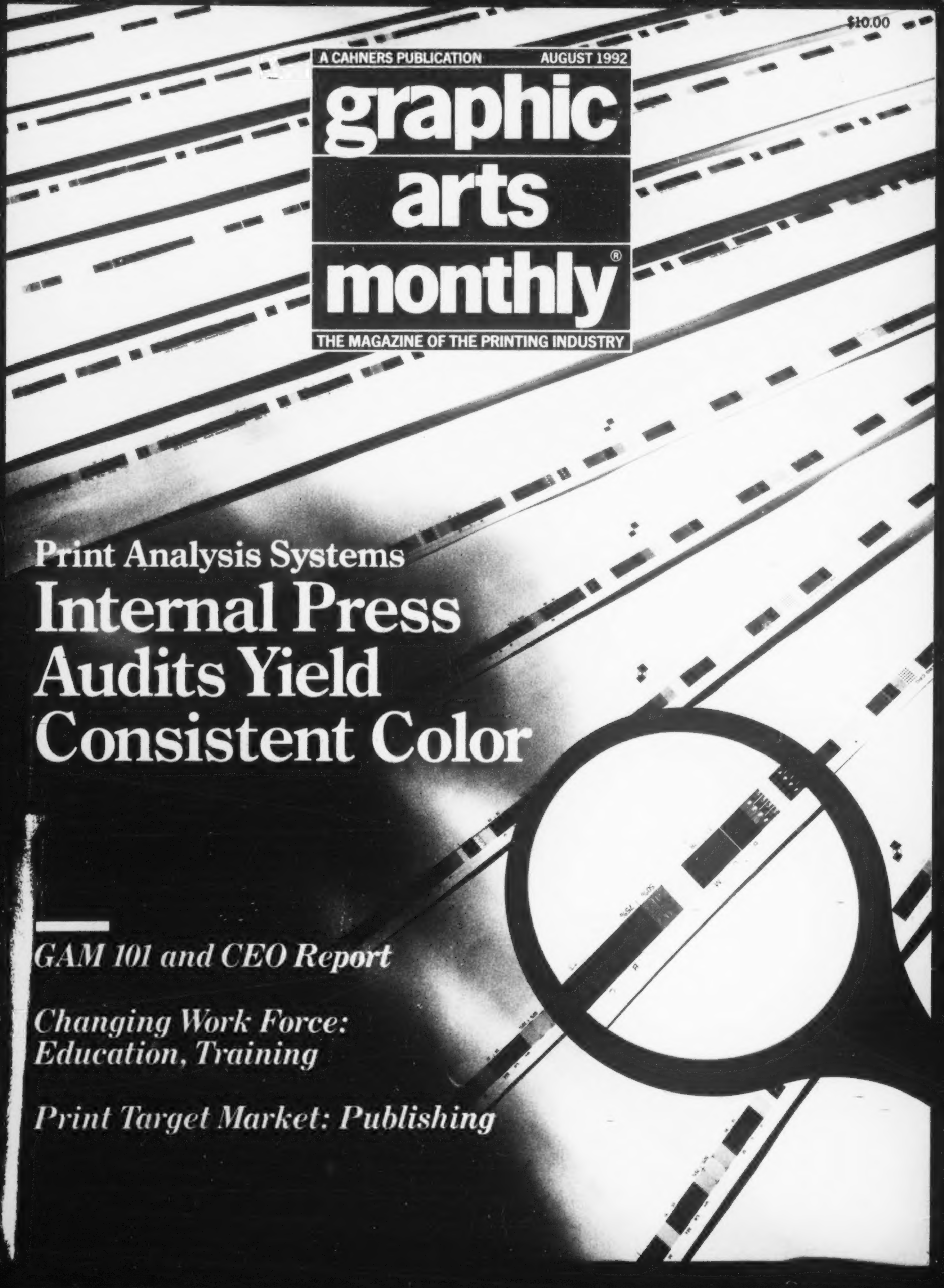
BENEFITS OFFERED

Employers have had to grapple with the issue of employee benefits for quite a while, yet now there is a greater awareness of the possible effect benefits can have on attaining and retaining a satisfied work force. A 1991 New York Times/CBS News poll indicated that more than 30% of its respondents stayed at their jobs, regardless of their employment satisfaction, because they did not want to lose their health benefits (which is the most common benefit sought by employees.) But how do printers compare in regard to this topical issue?

This is the second year questions about employment benefits appeared on the Salary Survey, and the 1992 results are remarkably consistent with 1991. Below is a list of benefits, which illustrates in rounded percentages, the number of companies that offer each benefit: first is the industry average, then the response rate based on company size, from over 200 to less than five employees.

As with salaries, the data show that benefits increase with company size. For example, 73% of overall respondents said they offer Health/HMO benefits, but only 60% of companies with less than 10 employees offered the benefit, compared with 91% of the largest companies.

Benefit	Total Resp.	Less than 10	200 or more
Paid Vacations	84.2%	75.0%	95.2%
Paid Holidays	83.6	73.5	95.2
Health Insurance/HMO	73.1	59.7	90.5
Paid Sick Days	52.0	43.9	71.4
Life Insurance	50.9	30.6	90.5
Disability Insurance	34.0	15.8	76.2
Dental Insurance	28.0	14.3	57.1
Merit Bonuses	22.7	14.3	52.4
Paid Personal Days	19.5	13.8	47.6
401K Plan	19.0	3.6	90.5
Company Car	17.4	12.8	28.6
Profit Sharing	16.9	5.6	38.1
Tuition Reimbursement	15.6	5.6	57.1
Retirement/Pension Fund	15.3	5.1	57.1
Recreational Activitites	10.0	3.1	38.1
Employee Assistance Program	6.1	1.0	38.1
Parental/Caregiver/Maternity Leave	4.7	1.5	14.3
Subsidized Food Service	3.7	1.5	4.8
Scholarships for Children	1.6	0.5	14.3
Child-care Program (on-/off-site)	1.1	–	4.8
No benefits	5.3	9.7	4.8



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A CAHNERS PUBLICATION AUGUST 1992

graphic arts monthly®

THE MAGAZINE OF THE PRINTING INDUSTRY

Print Analysis Systems

Internal Press Audits Yield Consistent Color

GAM 101 and CEO Report

Changing Work Force: Education, Training

Print Target Market: Publishing

VOLUME 64, NUMBER 8

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TOTAL CIRCULATION: 99,585

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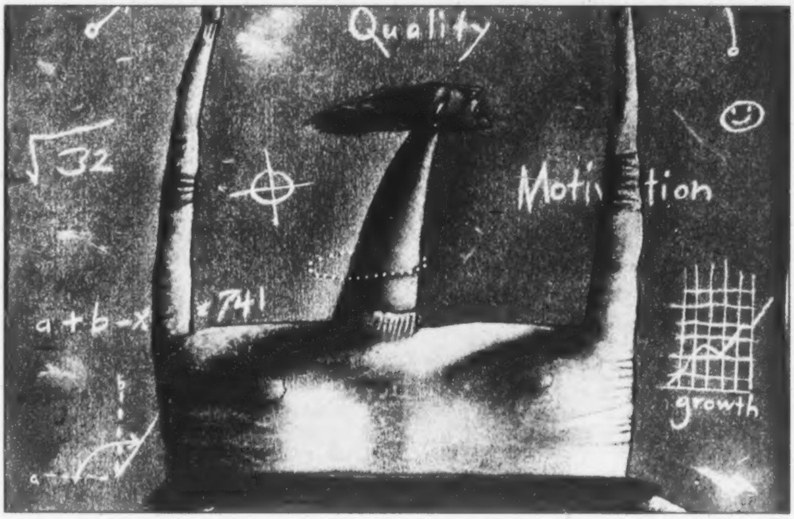

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Vice-President and Publisher Ronald C. Andriani
Editor Roger Ynostroza
Managing Editor Michael Karol
Associate Editors Earl Wilken, Lisa Cross
Assistant Editor Bridget Kinsella Arajs
Art Director Karen Lehrer
Production Editor Mick Andreano
Special Projects Manager Peter Johnston (212) 932-3368
Project Editor Debora Clesh Toth
Midwest Editor Bill Esler (312) 226-4641
Contributing Editors Dick Gorelick, George Griffin, Gerald A. Silver, Nancy Plowman, Theodore Lustig, Michael J. Ducey, Deborah Selsky (Economics)
Classified Advertising Manager Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant
Direct Marketing Manager Richard Negri (212) 463-6827
Business Manager Jerry Arotsky
Contracts Jeffrey Rothstein
Production Manager Daniel Coakley (212) 463-6545
Promotion Manager Dorian Torregrossa
Research Manager Cathy Hoey
Publisher's Assistant Holly Hoffman
Sales Administrator Elisa Balsamo
Bulk Reprints Carol Bien 1-800-323-4958
Supplement Reprints Cathy Dionne 1-800-523-9654
Circulation Manager Carol Ann Wilmes (303) 270-0207
Subscriptions/Back Issues 1-800-637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
Facsimile: (212) 463-6530

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TRUTH
JUSTICE
MORE SALES CALLS

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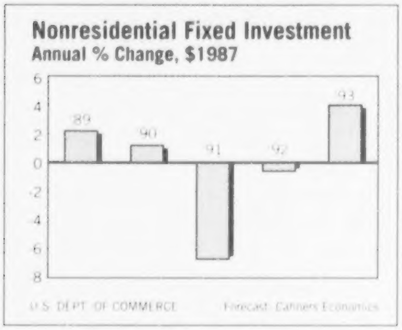
ETWATCHMARKETWATCH**MARKET WATCH**MARKETWATCHMARKET

Corporate Profits Turning Around

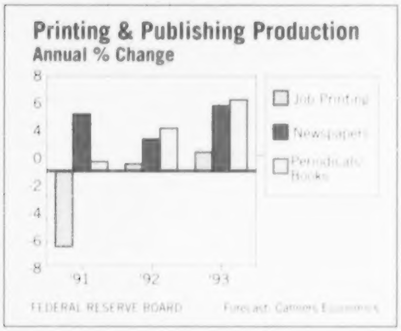

Nonresidential Fixed Investment
Annual % Change, $1987

U.S. DEPT. OF COMMERCE   Forecast: Cahners Economics

Business investment increased an annualized 3.1% in first-quarter 1992—the first rise in a year and a half—to $509.5 billion. This gain came on the heels of a sharp decline in the previous quarter. Most of this growth came from spending on information processing equipment, which jumped an annualized 12.7% in the first quarter. Meanwhile, spending on structures increased 2.5%, and spending on industrial and transportation equipment declined. Investment trends closely follow corporate profit trends.

After-tax corporate profits declined for three consecutive years before finally hitting a low point in the second quarter of 1991. Since then, profits have been slowly but steadily on the rise and are expected to post a 14.5% gain in 1992. Reaching its low point in fourth-quarter 1991, business investment fell to its lowest level since 1987. Investment spending is projected to rise through the end of the year but still fall short of last year's total. By 1993, investment spending will post a solid 4% rise.

Index Shows Output Upturn


Printing & Publishing Production
Annual % Change

FEDERAL RESERVE BOARD   Forecast: Cahners Economics

The index measuring printing and publishing output increased 3.1% in the first five months of 1992, as compared to the same period in 1991. This rise gives a clear indication of a solid recovery in this industry. Most of the strength appears on the publishing side, but the rate of growth in periodicals and books is slowing down. After four consecutive years of being the fastest-growing industry sector, periodical and book publishing is headed for a more modest year in 1992.

Job printing production grew 2.7% so far this year and is expected to reach 3.6% by year-end. Periodical and book output, on the other hand, is headed for 2.7% growth in 1992. While the past recession was rough on the printing and publishing industry, it could have been a lot worse. Most manufacturing industries saw production levels plunge. Printing and publishing growth will reach 3.6% in 1992 and 5.2% in 1993. This compares to 3.1% and 4.9% for total manufacturing.

NDEXGRAPHICARTSINDEX**GRAPHIC ARTS INDEX**GRAPHICARTSIND

The printing activity datatable has been revised to an easier-to-read format. In the left four columns, the most recent month of data is displayed, the last year and the forecasts for the next two years. The four right columns show the percent change for each period, as compared to a year ago. Also, we will now regularly report consumer spending and business investment, which comprise 82% of total gross domestic product and also serve as indicators of printing demand.

PRINTING ACTIVITY INDICATORS

	Actual value			% Chg from a year ago			
General Economic	**Q1/92**	**1992**	**1993**	**Q1/92**	**1991**	**1992**	**1993**
Gross Domestic Product (1)	4901	4949	5079	1.6	–0.8	2.1	2.6
Business Investment (1)	509	509	530	–1.9	–6.7	–0.6	4.0
Consumer Spending (1)	3311	3344	3437	2.2	–0.2	2.6	2.8
Industrial Production (2)	**Q1/92**	**1992**	**1993**	**Q1/92**	**1991**	**1992**	**1993**
Printing & Publishing	114.4	116.3	122.3	3.3	0.3	3.6	5.2
Newspapers	NA	92.8	94.2	NA	–6.4	0.6	1.6
Periodicals, Books, Cards	132.7	134.0	141.4	2.9	4.8	2.7	5.5
Job Printing	116.2	117.6	124.6	3.3	0.8	3.6	6.0
Producer Prices (3)							
Commercial Printing	130.9	132.2	137.5	0.8	1.6	1.6	4.0
Printing Trades Machinery	126.1	127.3	131.3	–0.5	1.4	0.5	3.2
Printing Ink	127.4	128.9	135.4	2.2	5.9	1.3	5.1
Paper	123.1	125.3	131.8	–3.9	–1.5	–1.3	5.2

(1) Billions of 1987 dollars, SAAR, U.S. Dept. of Commerce (2) Index 1987 = 100 Federal Reserve Board
(3) Index 1982 = 100 U.S. Dept. of Labor. All forecasts by Cahners Economics

Slow, Moderate Growth Ahead

Sales increases were described as "moderate", sales as "soft".

By Michael Karol
Managing Editor

In case you've been hiding under a rock for the past 12 months, 1991-92 was (and is) a tough time to make profits: this was true even for many of the top printers in our industry. Comments from the chief executives of GAM 101 companies (see accompanying gatefold) and other leading printers indicate that many held their own, but sales increases were frequently described as "moderate", sales themselves as "soft", and the future was called everything from "stable" to "a disaster".

Whose is the correct vision? It's impossible to say, though most would agree on several major points:

- Niche marketing, or targeting a company to a specific market and specializing in serving that market, is the only sure-fire way to remain a viable competitor.
- Whenever the recovery happens (and it could be six to 12 months or more before we notice any appreciable, positive change), it will be slow (most predict 1%-2%), and the growth that many companies saw in the '80s is not likely to occur again.
- New technology is bringing, and will continue to bring, faster and better methods of printing and getting the product to the customer. It will also mean printers have to shore up their distribution arms (and be ready and willing to enter new market territories, including international waters); be wary of overcapacity; and constantly provide training and technical support so employees will be capable of delivering a competitive product.

Wallace Stettinius is chairman and CEO of Cadmus Communications, Richmond, Va.

Of course, how a company performed in the past year depended quite a bit on the type of market it served. As William Hart, chairman of Hart Graphics, Inc., Austin, Texas points out, "If you have a good niche, and that niche is in an industry that's [growing], you're okay. If you are a general commercial printer, then 1993 is not going to be much better than 1992."

"Our differentiated markets, including software documentation, multi-media kits, hard- and soft-cover books, games and puzzles, and card sets will continue to grow," says George P. Oess, president of Western Publishing Co., Racine, Wis.

At Bowne & Co., New York, president Richard H. Koontz believes in a "fundamental strategy of remaining dedicated to financial printing, while also pursuing growth opportunities outside our core business. This basic approach enabled us to enjoy a much-improved year in 1991 [a 17% rise in sales for the fiscal year and a 70% rise in net income]."

"Continued repositioning with heightened focus on niche markets" is how Steven B. Campbell, president of H.S. Crocker Co., King of Prussia, Pa., describes one of his company's ongoing goals (in this case, the markets are pharmaceutical and specialty packaging). Campbell sees continued pressure on prices with greater customer expectations of "total value" leading to "improved quality (for customers) from fewer suppliers."

"We service the building-related industries, which have been in a weak period," says Thomas G. Colwell, president and chairman of Colwell Industries, Inc., Minneapolis. On the other hand, the "publications business is showing substantial improvement," good news since Colwell divested itself of four companies in the '80s and focused its business on "the color sampling field and printing publications and catalogs."

John E. Cocanougher, president and CEO of the Lancaster Press, Inc., Lancaster, Pa., agrees, calling his company a full-service printer in a specialized market niche: "Catalog and commercial work will rebound strongly for the second half of 1992, continuing through 1993, and publications will show slow, steady growth."

The Fleming Packaging Corporation of Peoria, Ill., finds itself in a somewhat more difficult position. Says chairman Theodore John Fleming, "Our 'core businesses' are continuing to deteriorate. We must diversify into related, growth industries. The distilled spirits and wine industries will still be flat" through 1993. "The direct mail business will continue to improve." All in all, Fleming predicts, "The total year should be better than last fiscal year."

Robert R. Woodson, chairman, president and CEO of the John H. Harland Co., Atlanta, notes that his company, "faces a selling environment that is significantly more competitive than it was five years ago, but we believe we have the business strategies in place to be successful." These include remaining a competitor in the check printing field, while strengthening Harland's position in new growth areas like data services.

"Our company, like most companies in the industry, is working hard on improving quality and reducing costs," says Wallace Stettinius, chairman and CEO, Cadmus Communications Corp., Richmond, Va. "We are trying to be even more focused in our sales efforts and are looking for better ways to differentiate our capabilities."

But even assuming you've got a market niche and are serving your customers well, the economy is a constant wild card, capable of throwing a wrench in the best-engineered business plan. Stettinius believes there "will be a modest (economic) recovery in 1993, which should help the printing industry. However, there is still substantial excess capacity, and we expect continued pressure on prices until the imbalance in supply/demand corrects itself. So 1993 probably looks better than 1991, but nothing like the 1980s." He adds, "I hope I'm wrong."

Many others see a rocky landscape ahead, including:

—Stephen C. Marcus, chairman, Mars Graphic Services: "Tough margins through '92, more shakeouts of marginal operations. Beginning in 1993, a better (yet moderate) growth on the bottom line, and little growth on volume."

—Michael J. John, president, CEO, Pacific Lithograph, San Francisco: "Slow growth due to overcapacity in the market; business will remain competitive and capital-intensive."

—Herbert Marshall Sayers, chairman, president and CEO, Sayers Communications, St. Louis, Mo.: "Slow, positive growth. We must manage printing businesses professionally, not as the traditional 'family' business."

—Robert W. Poorman Jr., CEO, Shepard Poorman Communications, Indianapolis: "Slow growth mode for most printers of $10 million-plus sales. We prefer to form 'strategic alliances' with our customers and vendors, thus enhancing long-term relationships and win-win situations."

Richard H. Koontz is president of Bowne & Co., New York.

—Leo Benatar, chairman and president, Engraph, Inc., Atlanta: "The business environment will be difficult with very little growth, very few opportunities to raise prices. Only way profit improvements will be achieved is through cost-effectiveness and specialization."

Finally, our favorite take on the economy comes from Christopher W. Georgehead, president of Gateway Press, Louisville, Ky., who says there will be "gradual improvement during the rest of 1992. After the presidential elections, in the first or early second quarter of 1993, the economy will either take off or fall flat on its face." A can't-miss prediction.

A few chief executives had sound advice for those companies who are positioned well and ready to perform despite the economy. Serge De Paoli, president of Trans-Continental Printing, Inc., Quebec, recalls that, "1990-91 were years of consolidation. We wanted to prepare ourselves for the recovery and continue our growth. Cost controls, MIS systems, total quality, rationalization of our operations, and a financing program were key elements. We wanted to be in position for any growth opportunity."

On March 31, his company acquired the Canadian Web Group from Southam. De Paoli adds, "In light of free trade, the leanest and meanest will survive. We must target our [companies] at being low-cost producers: best services, best products, and the best prices."

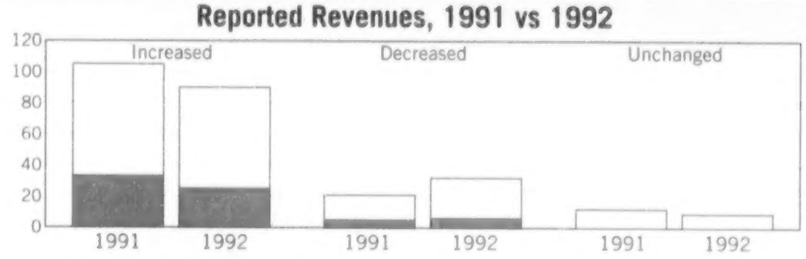
Plans for Edwards Brothers, Inc., Ann Arbor, Mich., include a "focus on quality enhancement, schedule reliability and our ability to partner with our clients as they respond to changing demands from their customers," according to president Martin H. Edwards. "There should be some improvement in volume and a continuation of the pressures for faster turnarounds and continued price compression. New and more sophisticated equipment will require greater employee skill and training, which companies will have to provide in an ever-greater amount."

New technology is a positive force, says Jim Pentecost, president, Printco, Greenville, Mich. "Every time equipment is replaced," he notes, "it is replaced with faster/wider/better equipment. This will continue to make print a very economical means of communicating when compared to other media."

Edward C. Nytko, president and CEO, Ringier America, Itasca, Ill., sums up, "Publishers are [coping with] a more competitive market and are turning to their printers for help in being more creative and productive. There is an increasing need for better technology and its associated flexibility to create magazines, catalogs, and books with greater value. While costs, quality, and timeliness have been, and continue to be, very important, it will be essential that printers provide aggressive distribution options along with international capability to their customers, as global markets continue to develop."

Sure, it's been a tough few years. And it might not get appreciably better (although it will get a *bit* better, says almost everyone) any time soon. For a printer to survive and thrive in the Nebulous Nineties, he or she will have to "go beyond traditional creative and geographic boundaries", as Nytko says, to forge a niche and work closely with vendors and customers as never before. It's a tough job, but if you don't do it, we guarantee someone else will.

Top Printers Survive Poor Year



Based on gloomy news reports, you could have expected plunging revenues among printers in this year's GAM 101 ranking, compared to last year. But though net income certainly suffered, sales revenues held up surprisingly well.

Shaded areas indicate double-digit change; chart data represents actual numbers of companies

Bubbling Under the GAM 101....

Williamson Printing Corp., Dallas, TX	$40,000,000
Daniels Printing, Everett, MA	$38,600,000
Mars Graphic Svcs., Westville, NJ	$38,291,000
John Roberts Co., Minneapolis, MN	$37,500,000
Concord Litho Co., Concord, NH	$36,272,970
Shepard Poorman, Indianapolis, IN	$36,013,000
Sayers Communications., St. Louis, MO	$35,600,000
S. Rosenthal & Co., Cincinnati, OH	$35,500,000
St. Ives, Inc., Hollywood, FL	$35,109,000
Bert-Co Graphics, Los Angeles, CA	$33,000,000
Standard Publishing, Cincinnati, OH	$32,423,617
Gateway Press, Louisville, KY	$31,653,000

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The GAM 101

Official Industry Ranking Of The Top Printing Firms

This detachable double-gatefold form contains the 1992 official ranking of the 101 largest printing companies in North America, ranked by sales volume for their most recent fiscal year.

Rankings of top business forms printers, greeting card manufacturers, and color trade shops appear separately to avoid distortion of the main list, which concentrates on commercial, specialty, and publication-type printers.

Data for virtually all the listings were obtained from the companies themselves. Very few companies projected their sales figures or offered estimates; if so, it was either due to accounting practices or recent acquisitions. For Canadian companies, a single currency exchange rate was applied.

One notable change in this year's GAM 101 listing is the disappearance of Southam Graphics Group, which last year reported sales of $526 million. Late last October, Southam, Inc. announced plans to divest its graphic holdings to concentrate on newspaper publishing and its other information businesses.

GAM 101 ranking information is compiled by Lisa Cross, Associate Editor.

In March, Southam's Canadian Web Group was acquired by GTC Transcontinental Group Ltd., Montreal. GTC is the parent company of Trans-Continental Printing, number 18 in this year's ranking, with estimated sales of $290 million (converted from Canadian dollars) for fiscal year ending October 31, 1991. Southam's remaining printing operations are up for sale.

A word of caution: use of the data to make direct comparisons can be very misleading, even though every effort has been made to exclude nonprinting revenues. The biggest discrepancy: commercial printers generally include billings for paper, while publication printers customarily do not. These qualifications notwithstanding, we believe the GAM 101 ranking to be the best available overview of the industry's leaders.

Additional copies of the 1992 GAM 101 are available for $5.00 each; send payment with order to Cathy Dionne, Reprints— Cahners Publishing, 1350 E. Touhy Ave., Des Plaines, Ill. 60018.

Illustration by Kate Brennan Hall

RANKING BY EMPLOYEE

Rank	Name	Employees
1	R.R. Donnelley	31,000
2	Deluxe Corp	17,563
3	Quebecor Printing	10,500
4	Lawson Mardon	7,500
5	Arcata Graphics	6,200
6	John H. Harland	6,000
7	World Color Press	6,000
8	Quad Graphics	5,369
9	Ringier America	5,000
10	Trans-Continental	4,500
11	Banta Corporation	4,000
12	Sullivan Graphics	3,800
13	Jostens	3,500
14	Brown Printing	3,100
15	Treasure Chest	3,000
16	Clarke American	2,995
17	Western Publishing	2,800
18	Graphic Industries	2,715
19	Clondalkin Group	2,100
20	American Signature	2,050
21	Cadmus	1,860
22	Bowne	1,800
23	Webcraft	1,800
24	Perry Printing	1,700
25	Instant Web	1,500
26	Courier Corp	1,396
27	Engraph	1,367
28	Menasha Corp	1,225
29	Mack Printing	1,200
30	Taylor Publishing	1,200
31	Valassis	1,170
32	Bertelsmann	1,100
33	Maple-Vail Book	1,100
34	Shorewood Packaging	1,100
35	Publishers Press	1,075
36	Ivy Hill	1,000
37	Stevens Graphics	1,000
38	Queens Group	954
39	Judd's	950
40	United States Banknote	900
41	Colwell Industries	850
42	Merrill Corp	831
43	Hart Graphics	815
44	Serigraph Inc	790
45	Lehigh Press	775
46	Sheridan Group	770
47	Fleming Packaging	750
48	Edwards Brothers	714
49	Alden Press	700
50	Solar Press	640
51	K.P. Companies	625
52	Scientific Games	620
53	Webcrafters	620
54	Graphisphere	615
55	Waverly Press	607
56	Meehan Tooker	600
57	Keller-Crescent	581
58	Gulf Printing	564
59	Moebius Printing	535
60	Graftek Press	530
61	Case Hoyt	500
62	George Rice & Sons	500
63	Johnson & Hardin	500
64	Lancaster Press	500
65	Petty Co	500
66	Retail Graphics	450
67	Shea Communications	450
68	Spencer Press	450
69	Continental Web Press	425
70	Arandell-Schmidt	410
71	Babn Technologies	400
72	Fort Dearborn Litho	400
73	MacNaughton Einson	400
74	Nielsen Company	400
75	Northeast Graphics	400
76	L.P. Thebault Co	400
77	Avanti Press	385
78	AGI Incorporated	375
79	Anderson Lithograph	375
80	Universal Printing	375
81	Henry Wurst Inc	360
82	Shakopee Valley	360
83	Printco	350
84	Sleepeck Printing	350
85	Noll Printing	342
86	Hennegan Company	330
87	Century Graphics	325
88	Sandy Alexander	325
89	Tech Web	325
90	Corporate Printing	320
91	Japs-Olson	305
92	H.M. Smyth	300
93	Berlin Industries	290
94	Acme Printing	275
95	Interweb Printing	275
96	Danbury Printing	268
97	ColorGraphics	265
98	Perlmuter Printing	250
99	Pacific Lithograph	200
100	E.D. Web	168
101	Kukla Press	135

BUSINESS FORMS PRINTERS

Rank, Name (Parent), Location	Sales (000), Most Recent Fiscal Year	Change (%)	Employees	CEO
1 **Moore Corporation Limited**[1], Toronto, Ont.	$2,492,278	−10	23,500	M.K. Goodrich
2 **Standard Register**[1], Dayton, OH	693,712	−3	5,852	J.K. Darragh
3 **Uarco, Inc. (Settsu Corp.)**, Barrington, IL	670,000	−3	5,600	H.L. Koelling
4 **NCR Systemedia**[1] **(AT&T)**, Miamisburg, OH	505,000	0	2,000	D.E. Clason
5 **Wallace Computer Services, Inc.**[1], Hillside, IL	458,800	+2	3,335	T. Dimitriou
6 **American Business Products**[1], Atlanta, GA	446,533	+12	4,000	T.R. Carmody
7 **Maclean Hunter Limited**[1], Toronto, Ont.	295,860**	+1	3,533	J. Greenhough
8 **Reynolds & Reynolds**[1], Dayton, OH	350,280	+2	2,722	R.C. Nevin
9 **Duplex Products, Inc.**[1], Sycamore, IL	285,271	−4	2,553	C.L. Peterson
10 **New England Business Service**[1], Groton, MA	231,838	−1	2,045	B.H. Calder
11 **Bowater Communication Papers**[1], Moline, IL	230,000	−18	700	S.B. Saidman
12 **SCM Allied Paper, Inc.**, Dayton, OH	140,000	−7	500	W.H. Ames
13 **Ennis Business Forms, Inc.**[1], Ennis, TX	131,810	+10	1,265	K.A. McCrady
14 **CST Office Products, Inc.**, Wheeling, IL	120,000	−5	300	T. McSweeney
15 **O.E.I. Business Forms**, Itasca, IL	111,300	0	575	R.A. Houston
16 **General Business Forms**, Skokie, IL	82,000	0	620	R.S. Kuntz

[1] In some cases, figures may include revenues from operations other than printing.

THE GAM 10 OFFICIAL RANKING

Rank, Name (Parent Compa ocation	Sales Most Recent Fiscal Year (000)	Sales Previous Fiscal Year (000)	Change (%)	Employees	Sales Per Employee	Sites	Press Units: Sheetfed, Web Offset, Gravure, Other	Primary Products	CEO	Years in Business
1 **R.R. Donnelley & Sons** cago, IL	$3,914,828	$3,497,943	+12	31,000	$126,285	50	*	COM	J.R. Walter	128
2 **Deluxe Corporation**[1], S ul, MN	1,474,482	1,413,553	+4	17,563	83,950	82	*	SPC	H.V. Haverty	77
3 **Quebecor Printing**[1], Mc al, Quebec	1,386,000	1,265,000	+10	10,500	132,000	55	413,595,344	COM,BK,PUB	J. Neveu	3
4 **Lawson Mardon**[1], Miss ga, Ont.	1,087,411**	949,218**	+15	7,500	144,988	50	*	SPC	A. Mattiussi	109
5 **World Color Press**, New Y k, NY	700,000**	682,091	+3	6,000	116,666	8	*	PUB	R. Burton	89
6 **Valassis Communicatio** Livonia, MI	636,000	574,000	+11	1,170	543,589	3	5,61,0	INS	D.A. Brandon	23
7 **Ringier America (Ringi AG, Zurich)**, Itasca, IL	600,000	654,000	−8	5,000	120,000	10	*	BK,PUB,CAT	E.C. Nytko	104
8 **Banta Corporation**[1], Me sha, WI	565,500	577,600	−2	4,000	141,375	19	*	COM,BK,PUB,CAT	C.W. Aurand Jr.	91
9 **Arcata Graphics Company**, Baltimore, MD	565,000	560,000	+1	6,200	91,129	10	*	BK,PUB	J.W. Fowler	87
10 **Treasure Chest Advertising**, Glendora, CA	540,000	530,000	+2	3,000	180,000	14	0,332,0	INS	S.G. Scheller	25
11 **Sullivan Graphics**, Brentwood, TN	537,000	554,000	−3	3,800	141,315	29	0,97,0,63	INS	J.T. Sullivan	4
12 **Quad/Graphics**, Pewaukee, WI	508,000	454,000	+12	5,369	94,167	7	6,389,58	COM	H.V. Quadracci	21
13 **Western Publishing**[1], Racine, WI	466,000	405,000	+15	2,800	166,482	3	46,30,0,6	BK	G.P. Oess	85
14 **Brown Printing (Gruner + Jahr)**, Waseca, MN	401,000	374,182	+7	3,100	129,354	9	0,213,38	PUB,CAT,INS	D. Nitz	45
15 **John H. Harland Company**[1], Atlanta, GA	378,700	366,800	+3	6,000	63,116	48	*	SPC	R.R. Woodson	69
16 **Graphic Industries**[1], Atlanta, GA	310,736	329,123	−6	2,715	114,451	34	292,220,0,30	COM	M.C. Pope III	22
17 **American Signature**, Memphis, TN	300,000**	300,000**	0	2,050	146,341	4	0,204,0	CAT	T.A. Tevis	7
18 **Trans-Continental Printing**[1] **(GTC Transcontinental Group)**, Saint-Laurent, Quebec	290,335**	295,247**	−2	4,500	64,518	22	22,388,0	COM,PUB,CAT,INS	S. De Paoli	16
19 **Clondalkin Group, Inc.**, Philadelphia, PA	270,000	270,000	0	2,100	128,571	5	*	COM	H. Lund	6
20 **Clarke American (MB-Caradon)**, San Antonio, TX	261,122	266,600	−2	2,995	87,185	43	*	SPC	J.E. Coin	118
21 **Bowne**[1], New York, NY	236,317	201,217	+17	1,800	131,287	34	300,200,0,1	FIN	R.H. Koontz	217
22 **Webcraft Technologies**, N. Brunswick, NJ	228,000	261,000	−13	1,800	126,667	4	*	COM	T.R. Cochill	23
23 **Engraph**[1], Atlanta, GA	200,499	167,808	+19	1,367	146,670	12	5,0,5,30,30	SPC	L. Benatar	59
24 **Jostens**[1], Minneapolis, MN	190,000	176,000	+8	3,500	54,286	5	148,0,0	BK	W.H. Lurton	95
25 **Stevens Graphics**, Atlanta, GA	181,000	181,000	0	1,000	181,000	4	44,38,0,4	DIR	H.M. Inman	95
26 **Cadmus Communications**[1], Richmond, VA	177,691	170,375	+4	1,860	95,533	12	128,44,2,1	PUB	W. Stettinius	8
27 **Alden Press**, Elk Grove Village, IL	173,000	163,000	+6	700	247,143	2	0,47,0	CAT	J.B. Spier	46
28 **Perry Printing (Journal Communications)**, Waterloo, WI	173,000	179,000	−3	1,700	101,765	6	5,17,3,10	PUB	C.A. Hutchison	61
29 **United States Banknote** New York, NY	162,000	126,000	+29	900	180,000	4	49,38,6,10,44	SPC	M. Weissman	122
30 **Shorewood Packaging**[1] armingdale, NY	160,140	142,012	+13	1,100	145,582	5	*	SPC	P.B. Shore	26
31 **Queens Group**, Long Is d City, NY	147,000	137,000	+7	954	154,088	4	80,20,0	SPC	E. Kaltman	60
32 **Bertelsmann Printing & Mfg.**, Berryville, VA	145,000	140,000	+4	1,100	131,818	5	57,33,0,2	BK	G. Thielen	5
33 **Lehigh Press**, Cherry H NJ	143,458	161,100	−11	775	185,107	5	50,52,0,3	COM	J.D. DePaul	68
34 **Menasha Corporation**, enah, WI	142,400	137,500	+4	1,225	116,245	11	*	SPC	D.C. Shepard	143
35 **Gulf Printing**[1] **(Southwe rn Bell)**, Houston, TX	134,000	112,000	+20	564	237,589	4	32,44,0	COM	R.G. Boerger	76
36 **Merrill Corporation**[1], S ul, MN	125,312	100,951	+24	831	150,797	5	38,32,0	FIN	J.W. Castro	24
37 **Courier Corporation**[1], L ell, MA	124,200	105,334	+18	1,396	88,969	5	18,40,0	BK	J.F. Conway Jr.	168
38 **Ivy Hill**[1] **(Time Warner)**, New York, NY	122,000	116,000	+5	1,000	122,000	4	220,8,0	COM,SPC	E. Kern	78
39 **George Rice & Sons**, L Angeles, CA	117,393	107,240	+9	500	234,786	1	38,24,0	COM	E. Grossberg	113
40 **Judd's Incorporated**, W ington, DC	105,700	107,200	−1	950	111,263	2	6,58,0	PUB	T.A. Manning	124
41 **Mack Printing Compani** , Easton, PA	104,120	81,226	+28	1,200	86,767	3	37,65,0	PUB	P.F. Mack	91
42 **Meehan Tooker**, East R erford, NJ	103,000	98,000	+5	600	171,667	5	49,112,0	COM	M.D. Voss	48
43 **Anderson Lithograph**, L Angeles, CA	102,000	105,000	−3	375	272,000	1	34,24,0	COM	G.T. Parana	41
44 **Retail Graphics Printin RGP)**, Dallas, TX	100,000	82,000	+22	450	222,222	4	0,40,0	INS	L.A. Thompson/ J.G. Brown	9
45 **Fleming Packaging**, Pe a, IL	98,094	108,592	−10	750	130,790	2	72,13,9,14,34	SPC	T.J. Fleming	58
46 **Hart Graphics**, Austin, TX	97,000**	79,366	+22	815	119,018	6	35,29,0,5,22	BK	W.L. Hart	82
47 **Arandell-Schmidt (Arandell Corp.)**, Menomonee Falls, WI	92,500	85,500	+8	410	225,610	1	0,25,0	CAT	F.E. Treis	70
48 **Taylor Publishing (Insilco)**, Dallas, TX	92,400	90,000	+3	1,200	77,000	4	57,0,0,1	BK	F.P. Perliski	53
49 **Graphisphere Corp. (Commercial Printing Holding Co.)**, Des Plaines, IL	90,000	116,000	−22	615	146,342	2	50,50,0,4	COM	G. Ingersoll	28
50 **Moebius Printing**, Milwaukee, WI	89,000	96,000	−7	535	166,355	2	19,36,0	COM	P.H. Thermansen	81

THE GAM 101: OFFICIAL RANKING

Rank	Name (Parent Company), Location	Sales Most Recent Fiscal Year (000)	Sales Previous Fiscal Year (000)	Change (%)	Employees	Sales Per Employee	Sites	Press Units: Sheetfed, Web Offset, Gravure, Other	Primar Produc	CEO	Years in Business
51	**Scientific Games**, Alpharetta, GA	$ 87.900	$ 87.500	0	620	$141.774	2	0.6.30	SPC	W.G. Malloy	18
52	**Petty Co., Inc.**, Effingham, IL	83.027	77.730	+ 7	500	166.054	2	1.75.0	COM	G.A. Whaling	36
53	**The Instant Web Companies**, Chanhassen, MN	80.000	75.000	+ 7	1.500	53.333	3	*	COM.SP	E.J. Carlson	23
54	**Publishers Printing Co.**, Shepherdsville, KY	77.000	72.000	+ 7	1.075	71.628	3	12.74.0	PUB	N.X. Simon	126
55	**Case Hoyt[1] (BCE, Inc.)**, Rochester, NY	75.000	78.000	− 4	500	150.000	1	28.32.0	COM	K. Kirk	73
56	**Century Graphics Corporation**, Metairie, LA	75.000	80.000	− 6	325	230.769	2	0.20.0	INS	C.J. Eberts	36
57	**Maple-Vail Book Mfg. Group**, York, PA	69.000	66.000	+ 5	1.100	62.727	2	*	BK	J.S. Wisotzkey	89
58	**MacNaughton Einson Graphics (MacNaughton Litho)**, Fair Lawn, NJ	67.000	67.000	0	400	167.500	2	48.36.0	COM	A. Merson	55
59	**Continental Web Press**, Itasca, IL	65.000	67.000	− 3	425	152.941	1	0.50.0	COM	K.W. Field	19
60	**Northeast Graphics**, North Haven, CT	64.000	52.000	+ 23	400	160.000	1	24.47.0	COM	S. Bortner	4
61	**Shea Communications**, Atlanta, GA	62.741**	61.469**	+ 2	450	139.424	2	0.40.0	COM.CAT.INS	M.D. Shea	4
62	**Serigraph, Inc.**, West Bend, WI	62.500	57.200	+ 9	790	79.114	3	*	SPC	J.B. Torinus Jr.	43
63	**Fort Dearborn Lithographic Co.**, Chicago, IL	60.768	56.871	+ 7	400	151.920	3	57.0.0	SPC	T.W. Adler	69
64	**Keller-Crescent Co.**, Evansville, IN	59.678	56.392	+ 6	581	102.716	2	41.0.0.3 .17	COM	T.M. Smythe	107
65	**Avanti Press**, Miami, FL	57.000	52.000	+ 10	385	148.052	1	0.18.0	COM	J.R. Arriola	27
66	**Berlin Industries (Smith Investment)**, Carol Stream, IL	57.000	58.000	− 2	290	196.552	1	0.60.0	COM	F.E. Schmitt	56
67	**Webcrafters, Inc.**, Madison, WI	57.000**	58.000	− 2	620	91.936	2	4.53.0	BK	J.J. Frautschi	102
68	**Printco**, Greenville, MI	56.539	48.565	+ 16	350	161.540	2	0.40.0	INS	J. Pentecost	23
69	**K/P Companies**, Berkeley, CA	56.493	58.497	− 3	635	90.389	18	*	COM	J.W. Knapp	26
70	**L.P. Thebault Company**, Parsippany, NJ	56.200	54.000	+ 4	400	140.500	2	31.18.0	COM	J.B. Thebault	38
71	**Edwards Brothers, Inc.**, Ann Arbor, MI	56.060	52.139	+ 8	714	78.515	3	26.3.0	BK	M.H. Edwards	99
72	**AGI Incorporated**, Melrose Park, IL	56.000	52.600	+ 6	375	149.333	1	22.5.0	SPC	R. Block	24
73	**Sheridan Group**, Hanover, PA	56.000	53.400	+ 5	770	72.727	2	41.0.0	BK	R.C. Sheridan	77
74	**Spencer Press**, Wells, ME	55.500	55.500	0	450	123.333	1	0.31.0	CAT	J.E. Speniinhauer III	52
75	**Sleepeck Printing**, Bellwood, IL	55.400	57.700	− 4	350	158.286	3	*	COM	M.W. Sleepeck	88
76	**Sandy Alexander, Inc.[1] (Mickelberry Corp.)**, Clifton, NJ	54.382	51.659	+ 5	325	167.329	1	39.17.0	COM	F. Stillo	29
77	**ColorGraphics, Inc.**, Los Angeles, CA	52.000	54.000	− 4	265	196.226	2	24.23.0	COM	C.N. Madison	39
78	**Johnson & Hardin**, Cincinnati, OH	51.000	45.000	+ 13	500	102.000	2	10.53.0	PUB	A.M. Jamison III	90
79	**Waverly Press[1] (Waverly Inc.)**, Baltimore, MD	48.696	45.200	+ 8	607	80.224	2	22.12.0	PUB	B. Knox	102
80	**Tech Web, Inc.**, Wheeling, IL	48.500	53.250	− 9	325	149.231	1	0.32.0	COM	D.G. Weymouth	16
81	**Universal Printing**, St. Louis, MO	48.000	46.000	+ 4	375	128.000	2	40.14.0.7	COM	R.A. Ebel	53
82	**Colwell Industries**, Minneapolis, MN	46.740	52.583	− 11	850	54.988	10	18.15.0.16	PUB.CAT.SFC	T.G. Colwell	99
83	**E/D Web**, Cicero, IL	46.000	44.000	+ 5	168	273.810	1	0.29.0	COM	C. Love	27
84	**Graftek Press[1] (Devon Group)**, Woodstock, IL	46.000	45.000	+ 2	530	86.793	4	19.53.0	PUB	S.B. Pearlman	25
85	**Hennegan Company**, Cincinnati, OH	45.454	38.962	+ 17	325	139.859	2	35.12.0	COM	R.B. Ott	106
86	**Noll Printing (Our Sunday Visitor)**, Huntington, IN	45.200	45.100	0	342	132.164	1	0.29.0	COM.CAT	J.W. Denman	14
87	**Shakopee Valley Printing (Guy Gannett Publishing Co.)**, Shakopee, MN	45.000**	37.600	+ 20	360	125.000	1	0.68.0	COM	K. Theis	58
88	**Corporate Printing**, New York, NY	45.000**	34.000**	+ 32	320	140.625	5	11.14.0	FIN	G. Shifrin	19
89	**Solar Press, Inc.**, Naperville, IL	45.000	41.700	+ 8	640	70.313	3	0.64.0.12	SPC	F.C. Hudetz	31
90	**Nielsen Company**, Cincinnati, OH	44.000	*	*	400	110.000	2	38.37.0	COM.CAT.INS	S.C. Nielsen III	68
91	**Japs-Olson**, Minneapolis, MN	43.300	46.700	− 7	305	141.967	2	53.85.0.3 .34	COM	R.E. Murphy	85
92	**Henry Wurst, Inc.**, North Kansas City, MO	43.200	43.150	0	360	120.000	2	0.32.0	COM	J.C. Wurst	55
93	**H.M. Smyth**, St. Paul, MN	42.000	40.000	+ 5	300	140.000	3	42.0.0.8 .32	SPC	P. Trowbridge	115
94	**Kukla Press, Inc.**, Elk Grove Village, IL	42.000	40.000	+ 5	135	311.111	1	0.34.0	COM	S.J. Kukla	28
95	**Lancaster Press, Inc.**, Lancaster, PA	41.600	39.000	+ 7	500	83.200	2	20.13.0	PUB	J.E. Cocanougher	115
96	**Acme Printing, Inc.**, Wilmington, MA	40.500	40.000	+ 1	275	147.273	1	40.12.0	COM	F.W. Canzano Jr.	62
97	**Perlmuter Printing Company**, Cleveland, OH	40.382	36.013	+ 12	250	161.527	1	14.18.0	COM	R. Perlmuter	75
98	**Babn Technologies (BCE, Inc.)**, Montreal, Quebec	40.150**	38.757**	+ 4	400	100.375	2	*	SPC	J.P. Desbiens	126
99	**Interweb Printing**, Boucherville, Quebec	40.150**	33.459**	+ 20	275	146.002	1	0.48.0	PUB	R. Hetu	11
100	**Danbury Printing & Litho**, Danbury, CT	40.000**	40.000**	0	268	149.254	1	17.36.0	COM	M. Previdi	46
101	**Pacific Lithograph**, San Francisco, CA	40.000	46.000	− 13	200	200.000	1	39.12.0	COM	M.J. John	43

GREETING CARD PRINTERS

Rank	Name, Location	Sales (000), Most Recent Fiscal Year	Change (%)	Employees	CEO
1	**Hallmark Cards**, Kansas City, MO	$2.800.000**	+ 4	22.000	I.O. Hockaday
2	**American Greetings[1]**, Cleveland, OH	1.573.061	+ 10	21.400	M. Weiss
3	**Gibson Greetings[1]**, Cincinnati, OH	524.314	+ 2	4.500	B.J. Sottile

COLOR TRADE SHOPS

Rank	Name (Parent), Location	Sales (000), Most Recent Fiscal Year	Change (%)	Scanners, Pagination Systems	Employees/ Mfg. Sites	CEO
1	**Wace USA[1]** (Wace Group, London) Chicago, IL	$205 000	- 34	27 44	2 200 9	J.J. Collins
2	**Applied Graphics Technologies**, New York, NY	120 000	- 9	21 31	1 200 6	F. Drasner P. Faucetta
3	**Schawk**, Des Plaines, IL	100 000	- 28	17 17	850 14	C.W. Schawk
4	**Jannock Imaging**, Toronto, Ont	84 800**	2	6 10	320 4	W.H. Batten J. Lane
5	**American Color** (Sullivan Graphics), Phoenix, AZ	73 400	- 3	29 22	800 15	D. Brazell
6	**Black Dot Graphics[1]** (Devon Group), Crystal Lake, IL	57 966	5	8 8	780 9	J.W. Dinzole
7	**Enteron Group**, Chicago, IL	55 000	- 6	6 4	400 5	J.J. Reilly
8	**Lanman Companies**, Washington, DC	49 000**	- 3	10 3	425 4	B.B. Cunningnam
9	**Kwik International Color, Ltd.**, New York, NY	35 750	- 49	3 3	100 1	R.J. Sirota
10	**Color Associates**, St. Louis, MO	29 400	5	2 4	325 3	C.W. Bauer
11	**Colotone, Inc.**, North Branford, CT	24 000	41	5 2	225 4	J.A. Collins
12	**Magna Graphic, Inc.**, Lexington, KY	22 780	- 15	5 3	180 3	K. Engle
13	**Blanks Color Imaging**, Dallas, TX	21 000**	- 10	4 4	198 1	L. Blanks
14	**TSI Graphics**, St. Louis, MO	20 331**	- 22	5 6	284 3	R.E. Hoffman
15	**Rex Three**, Sunrise, FL	19 000	- 11	5 5	175 1	J. Miller
16	**NEC, Inc.**, Nashville, TN	18 300	- 7	3.7	167 1	R.W. Luckett
17	**Viking Enterprises**, Chicago, IL	18 000	0	3 3	180 2	F.E. Allen
18	**Wilson Engraving**, Dallas, TX	17 000	- 21	7 7	180 3	E.L. Green
19	**H&S Reliance Ltd.**, Toronto, Ont	15 475**	- 8	1 4	145 2	J.A. Davidson

[illegible]

EXPLANATION OF ABBREVIATIONS

COM	Commercial Printing	SPC	Specialty
PUB	Publications	INS	Inserts
BK	Books	FIN	Financial Printing
CAT	Catalogs	DIR	Directory Printing

FOOTNOTES

[1] Publicly held
[2] Letterpress
[3] Flexo press
[4] Screen press
[5] Diecutting
[6] Gold leaf press
[7] Sheetfed intaglio
[8] Forms press
[9] Coaster press
[10] Cameron belt press
[11] Coater
[12] Specialty press

*Information not available
**Estimated or converted from Canadian

graphic
arts
monthly

Publishing Paces Print Profits

Publication printers and book manufacturers are dependent on publishing.

No industry is so intimately connected with the graphic arts as publishing. They were born together; indeed, most people in the West date the inception of the printing industry from Johannes Gutenberg's development of moveable type. What Gutenberg wanted to do was publish Bibles, and he invented printing in order to be able to do it.

The "twin" industries have since managed to separate themselves. Daily newspapers are the only publishers left that routinely do their own printing; no longer do we have people like Benjamin Franklin, who wrote books at least partly to give himself something to print.

Two large specialty areas, publication (i.e., magazine) printers and book manufacturers, are still almost totally dependent on publishing. But Printmarkets reports they comprise only 9.2% of total printing industry sales. (The leader is containers and boxes, at almost 24%.)

Publishing is often associated with large specialty printers, so it may be a surprise to find publishing listed second among industries who buy from smaller general commercial printers.

While mass-circulation publishing may be conspicuous, it's only the tip of the iceberg. An estimated 50,000 books are published in this country every year; only about 10% are reviewed by mainstream industry publications. Many of the others are genre books (romance, Westerns, pornography), textbooks, and scholarly publications, plus short-run, special-interest books, a majority of which are printed sheetfed by commercial printers.

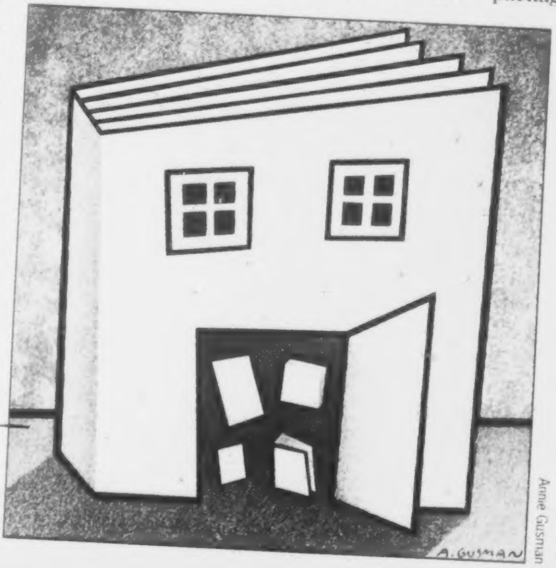
The same applies in periodical publishing. Standard Rate and Data Service publishes a huge listing of specialty publications, but untold thousands of titles have neither a mailing permit nor an SRDS listing. Again, most are printed by job shops.

A burgeoning growth area is packaged software publishing; virtually all applications programs are accompanied by at least one thick manual, in addition to other printed material.

Subject of this month's Regional Update: the Middle Atlantic states (New York, New Jersey, and Pennsylvania).

Reprints of this installation of Print Target Markets may be ordered from Cathy Dionne, Cahners Publishing Company, Reprint Department, 1350 E. Touhy Ave., Des Plaines, Ill. 60018. Call (800) 523-9654 in the U.S.; (708) 390-2777 in Canada. ⊟

By Peter Johnston
Special Projects Manager



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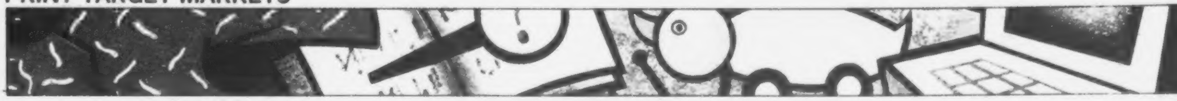


Publishing at a Glance

These figures include data for book, periodical and miscellaneous publishing, plus one area not included by the Department of Commerce in its publishing statistics, packaged software (most of which is printed material). In terms of establishments, employment or payroll, this is by a substantial margin the smallest industry we have studied in the Print Target Markets series. Its importance as a printing market, obviously, is due to the fact that printed materials are its end products.

Total Establishments: 12,188
Employees: 357,033
Total Annual Payroll: $10,573,089,000

Source: U.S. Department of Commerce, County Business Patterns

Industry Financial Outlook

The boom in magazine publishing began to slow about three years ago, and while the industry is recovering, it seems unlikely that the 1980s pattern of wildfire growth will be repeated. The persistent recession has drastically tightened advertising budgets, and mergers and acquisitions have reduced the total universe of available advertisers in most industries. Furthermore, alternative media such as direct mail and cable TV continue to chip away at the industry's revenue base. (Somewhat different but analogous and related problems have been plaguing the newspaper industry, which is not a part of this report.) Corporate ownership in the book publishing industry has changed greatly during the last decade, which has transformed (if not improved) the finan picture of the business. Overall, publishing growth satisfactory, but profit margins continue to narrow.

Annual Sales, $ Billion (Value of Shipments)

	1988	*1989*	*1990*	*1991*
Periodicals	$18.9	$20.6	$21.7	$23.4
Book Publishing	13.6	14.9	16.0	17.3
Miscellaneous Publishing	7.0	7.5	8.0	8.7

Source: U.S. Industrial Outlook

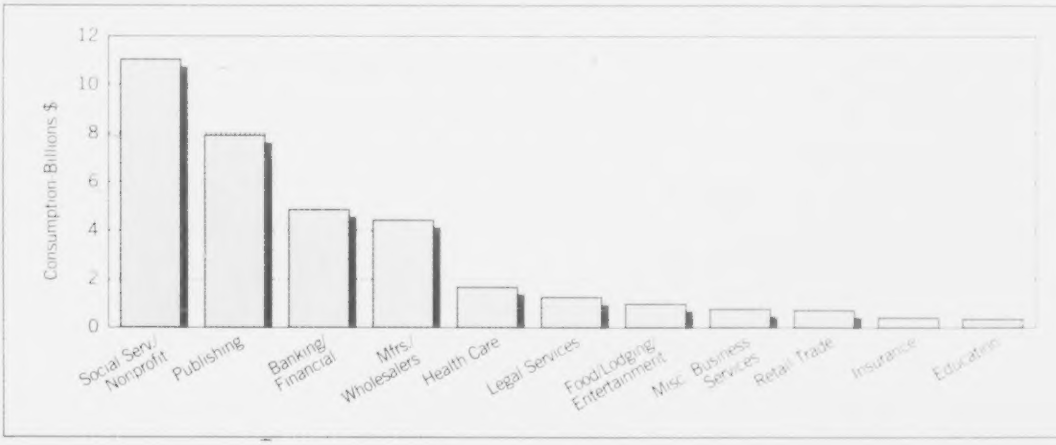
% Change, 1989-1991

	1988-1989	*1989-1990*	*1990-1*
Periodicals	9.0%	5.2%	7.8
Book Publishing	10.0%	7.0%	8.0
Miscellaneous Publishing	7.5%	7.0%	7.9

Charts and graphs by Annabelle Carter

Ranking of the Print Target Markets

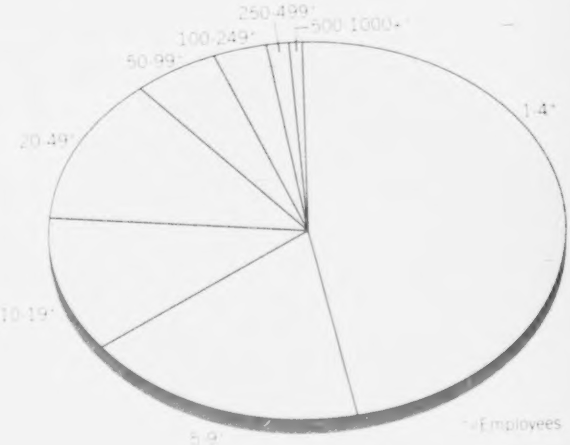
Industries to be covered in the Print Target Markets series in 1992 were selected from a DRI/McGraw-Hill listing of the largest purchasers of goods and services from commercial printers. This list was further refined by the editors, primarily by the elimination of industries that are not logical targets for small to medium-size commercial printers. The resulting list represents more than a third of all business-to-business printing sales.



Publishing Establishments by Employee Size

Publishing varies slightly from the norm in that it has a somewhat higher concentration of middle-sized and larger establishments. About 75% of all businesses have fewer than 10 employees, while in publishing the number is just over 65%. Meanwhile, 0.6% of businesses as a whole have more than 250 employees; for publishing the figure is 2.1%.

Size	Establishments	Percent
1-4 Employees	5,633	47.4%
5-9 Employees	2,123	17.9%
10-19 Employees	1,375	11.6%
20-49 Employees	1,485	12.5%
50-99 Employees	637	5.4%
[illegible] Employees	378	3.2%
[illegible] Employees	154	1.3%
[illegible] Employees	65	0.5%
[illegible] Employees	38	0.3%



Industry Structure

As noted on the cover page, there can be some difficulty in separating publishing from printing as economic activities. While publishers who specialize in publishing do little if any printing, there are a number of companies whose primary business is printing but who publish books or periodicals under their own inprint. To further muddy the waters, there are also publishers who dabble in printing, either (in a few cases) with their own facilities or (more commonly) as brokers. The Department of Commerce has wisely decided that there is no clear-cut dividing line: "These establishments," it says of periodical and other publishers, "may or may not perform their own printing." The Department of Commerce does, however, make an organized attempt to distinguish between books and periodicals, not always (viz. Granta or the old hardbound Horizon Magazine, among others) an easy task. Periodical publishing includes comic books, magazines, periodicals, statistical reports, television schedules, and trade journals. Book publishing includes regular and book club publishing as well as music books, textbooks, and pamphlets. Miscellaneous publishing embraces atlases, newsletters, calendars, catalogs, directories, maps, sheet music, sewing patterns, race track programs, racing forms, shoppers, technical manuals and papers, telephone directories, and yearbooks. Establishments primarily engaged in printing these things are listed elsewhere, as are business service companies that publish directories as part of their service.

Category	Establishments	Employees
Periodicals	4,061	116,488
Prepackaged Software	3,156	58,346
Book Publishing	2,180	70,129
Miscellaneous Publishing	2,254	66,843

Regional Distribution–Publishing Establishments

Region	Establishments	%. U.S.Total
New England	664	5.7%
Middle Atlantic	1,857	16.0%
East North Central	1,811	15.6%
West North Central	793	6.9%
South Atlantic	1,927	16.6%
East South Central	548	4.7%
West South Central	1,239	10.7%
Mountain	734	6.3%
Pacific	2,074	17.8%

Key to Regions

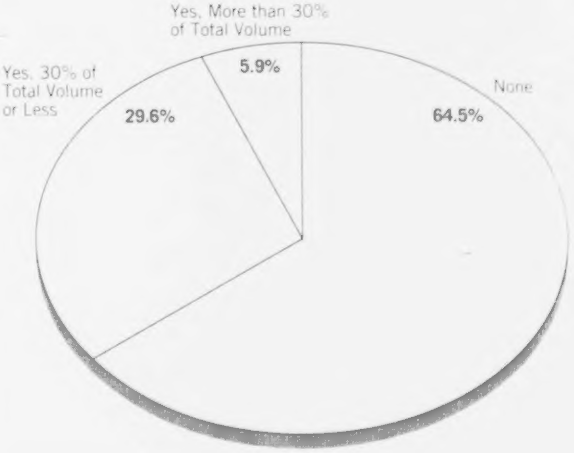
The nine geographic regions as referred to throughout this survey.

New England (NE): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **Mid-Atlantic (MA)**: New Jersey, New York, Pennsylvania. **South Atlantic (SA)**: Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia. **East South Central (ESC)**: Alabama, Mississippi, Kentucky, Tennessee. **East North Central (ENC)**: Illinois, Indiana, Michigan, Ohio, Wisconsin. **West North Central (WNC)**: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. **West South Central (WSC)**: Arkansas, Louisiana, Oklahoma, Texas. **Mountain (M)**: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Pacific (P)**: Alaska, California, Hawaii, Oregon, Washington.

Does Your Firm Do Work for Publishers?

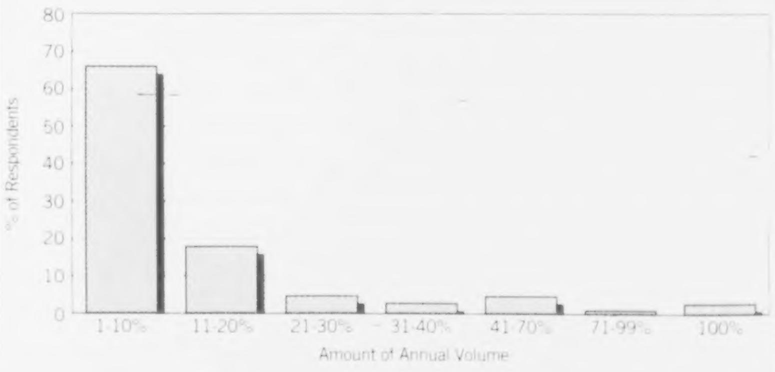
To measure the breadth of the impact of the publishing industry on commercial printing, small and medium-sized commercial printers across the country were surveyed for this article. Printers to be surveyed were selected on a random (every nth name) basis from the current circulation list of GRAPHIC ARTS MONTHLY. Over 35% of printers responding to the survey reported doing at least some work for publishing companies.

This is a smaller percentage than in most industries we have studied, which seems to indicate that many commercial shops are either unaware of possibilities in publishing or are not aggressively pursuing the market.

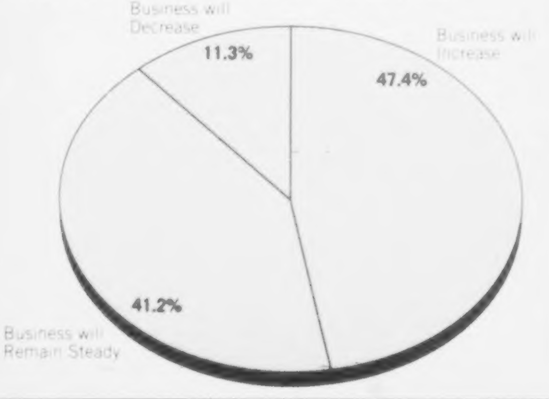


If So, How Much of Your Annual Volume is for Publishers?

Publishing accounts for a substantial (more than 30%) share of annual sales volume for just over 11% of printers surveyed. Almost 4% of respondents derive 70% or more of their sales from this source, and 2.8% report that all their printing sales is to publishers. This is higher than in most industries covered in the series, though not as high as might have been expected. Note that the surveyed population is highly representative of general commercial printers.



Over the next 12 months, what do you feel will happen to your share of business here?



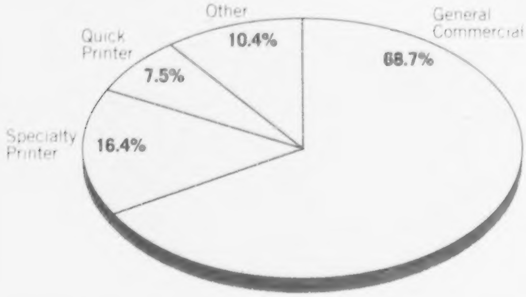
Printer-Supplied Products for Publishers

Not surprisingly, over 40% of those doing work for publishers produce bound publications of some sort. Unlike the other industries studied, a minority of commercial printers doing work for publishers report printing stationery and business forms for them. Advertising printing is a major investment for this segment; periodical publishers rely heavily on direct mail campaigns, as do book clubs and other publishers whose sales are reliant on some sort of subscription system.

Stationery and Business Cards	48.1%
Business Forms	39.6%
Advertising Sheets, Pamphlets, or Brochures	52.8%
Unbound Non-Advertising Material	38.7%
Miscellaneous Non-Printing Services	28.3%
Bound Publications	40.6%

Regional Update/Middle Atlantic

Type of Company

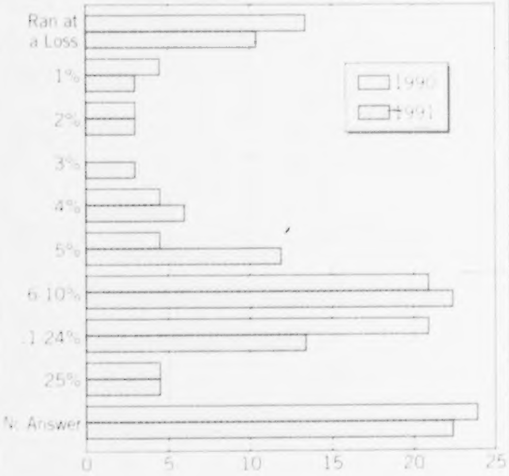


Profile of Respondents

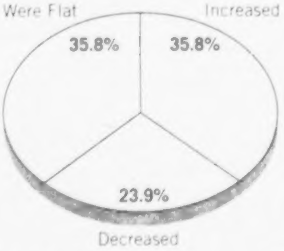
Commercial printers in New York, New Jersey, and Pennsylvania responding to a recent mail survey reported year-over-year changes in their annual sales, profitability, and operating capacity. They also revealed how they perceived the outlook for business in their area.

Gross Sales in 1991		**# of Employees**	
Less than $500,000	74.6%	1-4	46.3%
$500,000-749,999	4.5%	5-9	31.3%
$750,000-999,999	7.5%	10-19	20.9%
$1 million-2,499,999	11.9%	20 or more	1.5%

Profit as a Percent of Gross Sales, 1990



How Sales Changed, 1990 to 1991



1989 to 1990	
Sales Increased	50.0%
Sales Decreased	25.0%
Sales Were Flat	25.0%

(For illustration only.)

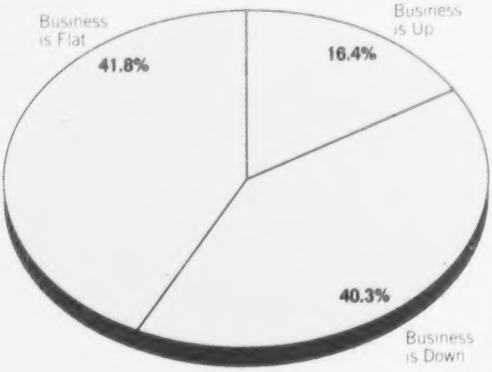
If Sales Increased 1990-1991, How Large Was Increase?

Less than 5%	8.3%
5-10%	37.5%
11-20%	33.4%
21-30%	12.5%
31-50%	4.2%
More than 50%	0%

If Sales Decreased 1990-1991, How Large Was Decrease?

Less than 5%	6.3%
5-10%	43.8%
11-20%	43.8%
21-30%	6.3%
31-50%	0%
More than 50%	0%

Perception Index



Comments by Printers

- Growth is due to New York City market.
- We have been having a record-setting quarter. If there's a recession, we don't see it.
- Profit margins have dropped; we are all scrambling for market share.
- More sales/production from a declining customer base.
- It's very difficult to make predictions, but it looks like a slight recovery.
- Business stable after a sharp decline.
- We just opened in 1991, figures are still rough, but we expect to do much better this year.
- There are too many printers in this area, and their prices are too low, so they end up going out of business or selling.

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A CAHNERS PUBLICATION SEPTEMBER 1992

graphic arts monthly®

THE MAGAZINE OF THE PRINTING INDUSTRY

New-Age Color

'Match' Yields to Consistency In Proofing

Graph Expo '92

Waterless Printing

Overview of Print Target Markets

VOLUME 64, NUMBER 9

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TOTAL CIRCULATION: 99,585

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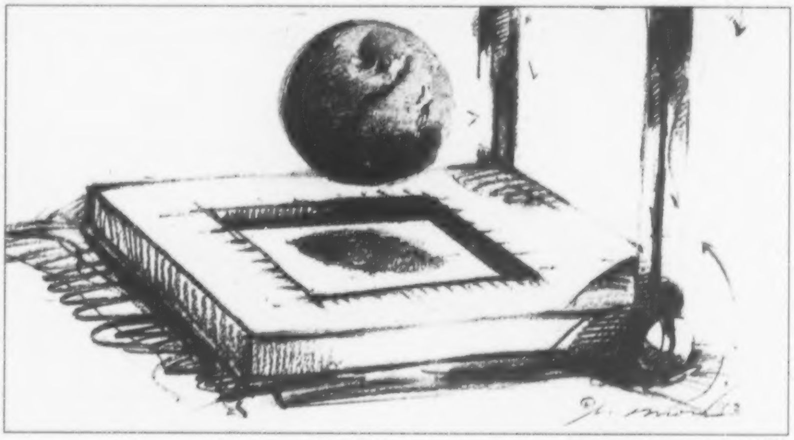
FEATURES



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Vice-President and Publisher
Ronald C. Andriani

Editor Roger Ynostroza

Managing Editor Michael Karol

Associate Editors Earl Wilken, Lisa Cross

Assistant Editor Bridget Kinsella Arajs

Art Director Karen Lehrer

Production Editor Mick Andreano

Special Projects Manager
Peter Johnston (212) 932-3368

Project Editor Debora Clesh Toth

Midwest Editor
Bill Esler (312) 226-4641

Contributing Editors
Dick Gorelick, George Griffin, Gerald A. Silver, Nancy Plowman, Theodore Lustig, Michael J. Ducey, Deborah Selsky (Economics)

Classified Advertising Manager
Kevin D. Thomas (212) 463-6843
Maureen Lewis, Assistant

Direct Marketing Manager
Richard Negri (212) 463-6827

Business Manager Jerry Arotsky

Contracts Jeffrey Rothstein

Production Manager
Daniel Coakley (212) 463-6545

Promotion Manager
Dorian Torregrossa

Research Manager Cathy Hoey

Publisher's Assistant Holly Hoffman

Sales Administrator Elisa Balsamo

Bulk Reprints Carol Bien
1-800-323-4958

Supplement Reprints Cathy Dionne
1-800-523-9654

Circulation Manager
Carol Ann Wilmes (303) 270-0207

Subscriptions/Back Issues
1-800-637-6089

249 W. 17th St., New York, NY 10011
Sales offices: (212) 463-6828
Editorial offices: (212) 463-6834
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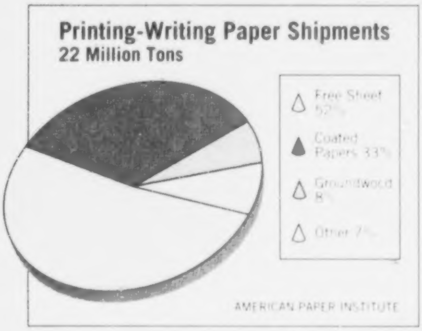
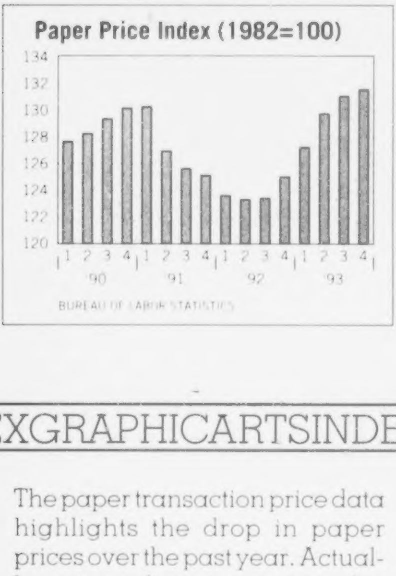
Printing-Writing Paper Demand Up



In the first five months of 1992, shipments of printing and writing papers increased 2.5% above last year. But, in the most recent two months, shipments growth has been waning. Still, there appear to be some clear signs of a pick up in paper demand from the advertising-related end-markets. In particular, newspaper classified lineage and magazine advertising pages are on an upward trend. Furthermore, commercial printing usage has increased as paper shipments to commercial printers has risen 5.3% so far this year.

The most substantial shipment gains have come from uncoated free sheet papers. Free sheet accounts for 52% of all printing and writing paper shipments; shipments of this paper type have risen 5.3% since the beginning of the year. Meanwhile, shipments of all coated papers, representing 33% of printing and writing papers, rose 2.4%, and uncoated groundwood paper shipments dropped 12.4%. The overall outlook calls for a moderate increase this year followed by a stronger pick up in 1993 as the economic recovery gains momentum.

2nd-Quarter Paper Prices Down



Transaction prices for every major paper category will drop again in 1992, for the third year in a row. While demand is picking up slowly, it is significant enough to put an upward pressure on prices. Second-quarter price data is in and the news remains good for printers and other paper buyers. The only paper categories to increase in price in the second quarter were 35-lb offset-uncoated groundwood and bond-uncoated white #4, and the gains were very slight.

Prices for all coated paper grades are now at least $100 per ton less than a year ago. These trends are reflected in the producer price index for all paper types. The index rose temporarily in May but dropped back down in June to 123.3 (1982=100). The average index level for the first half of this year is the lowest since early 1988. Paper prices are expected to slowly increase and reach 125 by the end of the year. The forecast calls for the index to rise to 131.5 in 1993, the same level as the peak in mid-1989.

DEXGRAPHICARTSINDEX**GRAPHIC ARTS INDEX**GRAPHICARTSIND

The paper transaction price data highlights the drop in paper prices over the past year. Actually, prices of most paper grades will post their third consecutive year of declines in 1992. Shipments, while improving slightly so far this year, have yet to make any substantial gains. Demand for paper has increased, but not enough to match the available supply. Thus, paper prices are sure to remain low until demand really picks up.

PAPER INDUSTRY INDICATORS

				Annual % Change		
Shipments (1)	**Q2/92**	**Q1/92**	**Q2/91**	**1990**	**1991**	**1992**
Coated paper	1802	1822	1726	3.9	-2.2	0.9
Uncoated groundwood	384	378	420	0.4	-0.8	-5.4
Uncoated free sheet	2862	2945	2791	4.1	0.3	4.3
Transaction Prices (2)						
Newsprint-30lb. East	$411	$429	$530	-2.3	-4.6	-15.2
Directory-uncoated groundwood 22.5lb. white	575	750	750	-4.0	-2.1	-0.8
Supercalendered-uncoated groundwood 34lb.	685	760	800	-2.7	-1.6	-4.9
Offset-uncoated groundwood	540	600	605	-3.1	-3.6	-3.1
Offset-uncoated white 50lb.	560	643	660	-4.7	-13.1	-5.7
Coated-No.1 70lb.	1400	1518	1580	-0.1	-2.0	-3.4
Coated-No. 3	930	1000	1077	0.2	-13.1	-5.0
Coated-No. 5 34lb. roto	785	870	905	-3.7	-4.2	-3.8
Bond-uncoated white No.1 20lb.	1070	1070	1083	-0.7	-0.7	-0.2
Bond-uncoated white No.4 20lb.	687	640	707	-10.1	-16.6	-9.0

(1) Thousands of short tons. American Paper Institute. (2) Dollars per ton. *Purchasing* magazine's Transaction Pricing Service. All forecasts by Cahners Economics.

graphic
arts
monthly

Markets Follow Economic Path

Throughout the year we have been focusing in this series on industries that buy a lot of printing from commercial printers, including small ones. That's why we have given very little attention to areas like long-run magazine printing, book manufacturing, or financial printing: the average-size commercial printer doesn't do that kind of work.

We have taken some generally available statistics for each of these industries and tried to determine from them the answers to three questions:

1. How big is it?
2. How's it doing?
3. How's it likely to do over the next year or so?

Those are simple questions; the answers are a bit more difficult to determine. Even #1—size—is problematic. We can figure out roughly how many sites exist in a given industry, and about how many people work in them, which is part of the answer. But part of the question of size has to do with how much money they make, and there the researcher runs into a maze of (often deliberately) confusing accounting systems. It's simpler to look at how much printing they buy and let it go at that, which is what we have done.

By Peter Johnston
Special Projects Manager

All of these markets are tied to the fortunes of the overall economy.

Questions #2 and #3 are much more difficult. Speaking very, very generally, we can say that, of the industries covered in this survey, publishing, manufacturing, food and lodging, business services, nonprofits, and retail are holding their own. Legal services, as usual, are doing fine. Education and health care are complicated political issues, and their prospects depend to a great extent on political decisions to be taken (or not taken) in the fairly near future. Banking and insurance are deeply entangled with each other, and their situation is anybody's guess.

Which brings us to this month's subject, an overview of the U.S. economy. We present the information in this article merely as a handful of partial snapshots. Some of the available figures do seem to indicate that the economy bottomed out in 1991 and is recovering. Others, such as unemployment and the investment rate, are more ambivalent. All the markets that comprise this series are, to one extent or another, tied to the fortunes of the overall economy.

Anne Gusman

Reprints of this article may be ordered from Cathy Dionne, Cahners Publishing, Reprint Dept., 1350 E. Touhy Ave., Des Plaines, Ill., 60018. Call (800) 523-9654 in the U.S.; (708) 390-2777 in Canada. ▤

Print Target Markets at a Glance

Though they were selected purely on the basis of their consumption of commercial printing, the 11 industries included in the Print Target Markets constitute a broadly representative cross-section of the overall economy. They total about half of it, and are drawn from nearly every major economic sector.

Total Establishments: 3,411,519 (56.7% of Total U.S. Business Economy)
Employees: 48,547,645 (55.2% of Total U.S. Business Economy)
Total Annual Payroll: $848,741,714,000 (45.6% of Total U.S. Business Economy)

Source: U.S. Department of Commerce, County Business Patterns

Overall U.S. Economy: Selected Indicators

As we go to press, the most complete figures for 1992 are those for the first quarter. For purposes of comparison we present them with first-quarter figures for 1987-1991. The nadir seems to have been reached in 1991, though unemployment and private investment levels are still unhealthy.

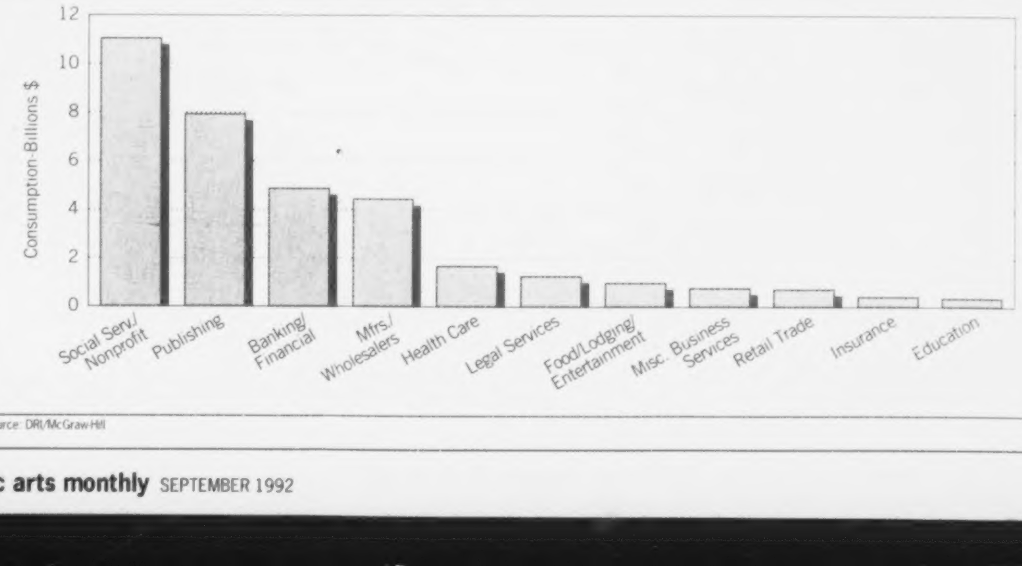
	1987	1988	1989	1990	1991	1992
Gross Domestic Product* (1987 bil. dol.)						
1st Qtr	4,460.0	4,655.3	4,809.8	4,880.8	4,824.0	4,891.9
Year-to-year change		4.4%	3.3%	1.5%	-1.2%	1.4%
Gross Private Domestic Investment*						
1st Qtr	729.3	756.9	803.2	754.9	657.0	666.1
Year-to-year change		3.8%	6.1%	-6.0%	-13.0%	1.4%
Consumer Price Index** (1982-84=100)						
1st Qtr (Figures not seasonally adjusted)	111.6	116.1	121.7	128.0	134.8	138.7
Year-to-year change		4.0%	4.8%	5.2%	5.3%	2.9%
Producer Price Index** (1982=100)						
1st Qtr (Figures seasonally adjusted)	104.3	106.4	111.7	117.5	121.7	122.0
Year-to-year change		2.0%	4.9%	5.2%	3.6%	0.2
Civilian Unemployment Rate**						
1st Qtr	6.6%	5.7%	5.2%	5.3%	6.5%	7.2%

* Bureau of Economic Analysis **Bureau of Labor Statistics

Charts and graphs by Annabelle Carter

Ranking of the Print Target Markets

Industries to be covered in the Print Target Markets series in 1992 were selected from a DRI/McGraw-Hill listing of the largest purchasers of goods and services from commercial printers. This list was further refined by the editors, primarily by the elimination of industri that are not logical targets for small to medium-siz commercial printers. The resulting list represents mor than a third of all business-to-business printing sales.



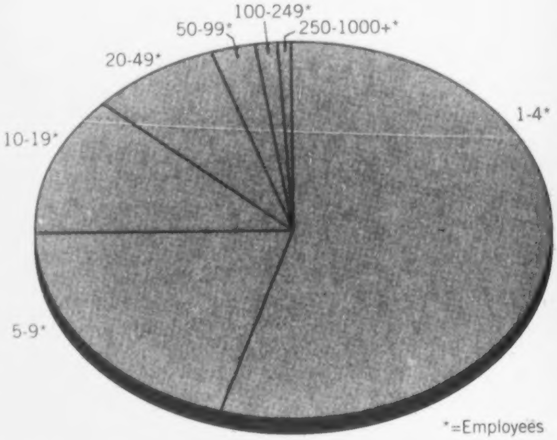
Source: DRI/McGraw-Hill

U.S. Businesses by Employee Size

We are accustomed to thinking of the printing industry as an anomaly: a little island of small, family-owned businesses in a sea of vast corporations. A look at these numbers, however, shows that the industry is not all that different from the overall pattern of U.S. businesses, 75% of which have fewer than 10 employees.

Size	Establishments	Percent
1-4 Employees	3,202,670	54.9%
5-9 Employees	1,206,902	20.1%
10-19 Employees	736,809	12.2%
20-49 Employees	477,406	7.9%
50-99 Employees	167,451	2.8%
100-249 Employees	90,497	1.5%
250-499 Employees	22,903	0.4%
500-999 Employees	8,944	0.1%
1000+ Employees	5,018	0.1%

Source: U.S. Department of Commerce, County Business Patterns



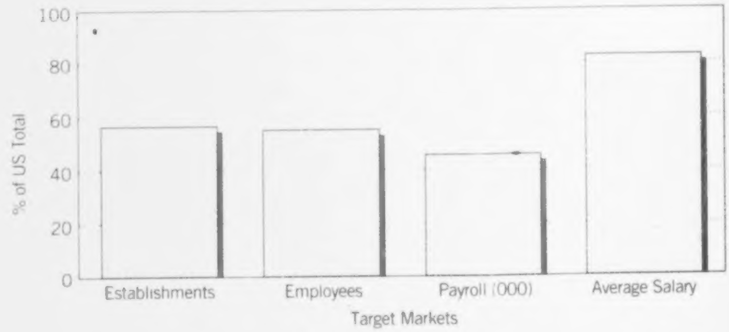
Print Target Markets and the U.S. Economy: Structural Comparisons

The Commerce Department divides the economy into nine major groups: agriculture (including forestry and fishing), mining (which includes oil & gas), construction, manufacturing, transportation & utilities, wholesale trade, retail trade, finance, insurance & real estate, and services. Four of these major groups, agriculture, mining, construction and transportation, are not major consumers of commercial printing and are not represented in the Print Target Markets. However, their relative health has a tremendous indirect effect on the printing industry.

Print Target Market	Establishments	Employees	Payroll (000)	Average Salary
Health Care	417,183	7,221,955	$159,061,465	$22,024.71
Insurance	145,033	2,012,419	$35,602,609	$17,691.45
Retail	1,094,428	12,704,071	$168,029,622	$13,226.44
Wholesale	462,173	5,981,378	$160,225,619	$26,787.41
Education	33,225	1,630,888	$25,019,000	$15,340.72
Bus. Svcs	250,527	4,385,365	$77,999,320	$17,786.28
Nonprofits	219,646	1,893,457	$21,681,049	$11,450.51
Publishing	12,188	357,033	$10,573,089	$29,613.76
Financial	143,761	3,121,268	$88,057,400	$28,212.06
Legal Svcs	135,709	848,507	$30,270,241	$35,674.71
Food, Lodging	497,646	8,391,304	$72,222,300	$8,606.80
TOTAL	3,411,519	48,547,645	$848,741,714	$17,482.65
US TOTALS	6,018,600	87,881,632	$1,859,529,932	$21,159.48

Target Market as % U.S. Total

The figures for establishments and total employment are directly proportional to national averages. When it comes to payroll, it appears that the elimination of relatively high-salary specialty fields such as construction, mining and transportation skew the figures for Print Target Markets sharply downward. A look at average annual salaries shows that about half these industries are below the national average. The very low figure for food & lodging doubtless represents a high contingent of part-time workers.



Source: Department of Commerce

U.S. Economy: Selected Regional Comparisons

Population Increase

	Region	Population Increase, 1980-1990
United States	248,710	9.8%
New England	13,207	7.0%
Middle Atlantic	37,602	2.2%
East North Central	42,009	0.8%
West North Central	17,660	2.8%
South Atlantic	43,567	17.9%
East South Central	15,176	3.5%
West South Central	26,703	12.4%
Mountain	13,659	20.1%
Pacific	39,127	23.0%

Source: Statistical Abstract, 1991

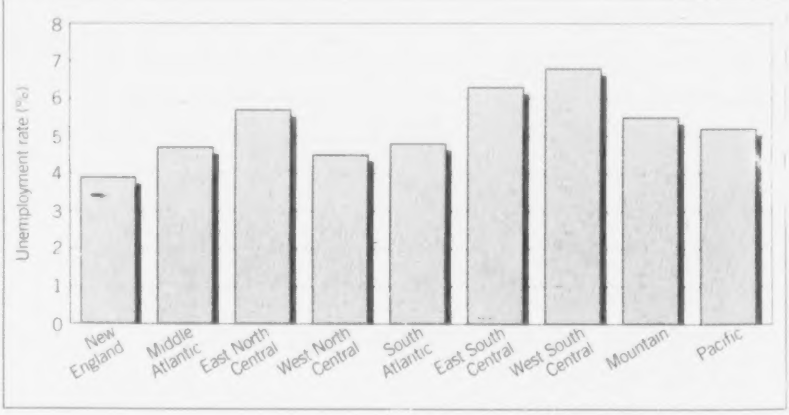
Business Failures/Retail Sales Per Househol

	Business Failures, Increase, 1989-90	Retail Sales Per Household, Increase, 1987-89
United States	20.0%	
New England	138.5%	9.2%
Middle Atlantic	61.3%	10.0%
East North Central	-5.8%	8.9%
West North Central	20.8%	10.0%
South Atlantic	29.0%	3.9%
East South Central	27.5%	6.9%
West South Central	15.7%	12.0%
Mountain	13.5%	3.9%
Pacific	7.4%	9.6%

Source: 1991 Statistical Abstract of the United States

Civilian Labor Force: Unemployment Rate

Unemployment is now at its highest level in a good many years in the U.S. Furthermore, the unemployment situation in the United States is considerably worse than is indicated in these figures, which do not count the under-employed, the marginally self-employed, those who have given up and no longer look for work through state employment agencies, and those who have not yet filed for unemployment compensation. The real unemployment rate is a political issue and is not clearly known.



Comments by Printers

West South Central: I think it will be one-to-two years before business will really pick up.

Mountain: Being stable is as good as it gets; there is so much competition in the Denver area.

East South Central: The previous years' profits were made from designing, typesetting, and layout. This has declined.

Middle Atlantic: Too many printers make their prices too low, and they end up out of business.

West North Central: Eastern Iowa is healthy.

Pacific: Area's slow. Only businesses with established good customers will survive.

East North Central: Busy one month, not the next. It's hard to track anything any more.

New England: I am very discouraged. This has been a family business since 1940; I'd sell if I could.

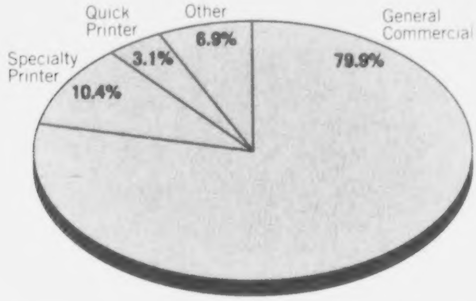
South Atlantic: Business is growing because the South is growing.

Key to Regions

The nine geographic regions, as referred to throughout this survey:
New England (NE): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. **Mid-Atlantic (MA):** New Jersey, New York, Pennsylvania. South Atlantic (SA): Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington, D.C., West Virginia. **East South Central (ESC):** Alabama, Mississippi, Kentucky, Tennessee. **East North Central (ENC):** Illinois, Indiana, Michigan, Ohio, Wisconsin. **West North Central (WNC):** Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Sout Dakota. **West South Central (WSC):** Arkansas, Louisiana, Oklahoma, Texas. **Mountain (M):** Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming. **Pacific (P):** Alaska, California, Hawaii, Oregon, Washington.

Commercial Printers and the Print Target Markets

Type of Firm



Profile of Respondents

Commercial printers responding to a series of timed mailings during a six-month period. A total of 3,750 names were selected on an Nth name basis from GAM's controlled circulation of commercial printers with 19 employees or less. To eliminate duplication, one name was chosen per site among business and production managers.

Job Title	
Owner/President/CEO	68.2%
Vice-president/General Mgr./ Director	11.6%
Production Mgr./Supervisor	7.9%
Production/Operations	3.1%
Other	3.1%

# of Employees	
1-4	42.5%
5-9	33.6%
10-19	19.2%
20 or more	4.4%

Commercial Printing Revenues Generated from Target Markets

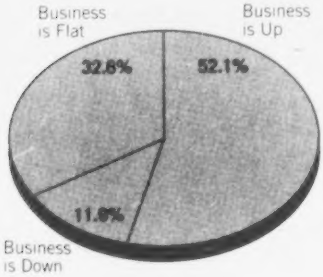
Market	Percentage of Print Revenues
Manufacturers–Wholesalers	22.5%
Retail Trade	14.8%
Misc. Business Services	10.5%
Health Care Providers	9.4%
Social Services–Nonprofits	8.6%
Food, Lodging, Entertainment	7.0%
Educational Institutions	6.8%
Banking/Financial Services	6.1%
Publishing	5.1%
Real Estate	3.6%
Insurance Carriers or Agents	3.0%
Legal Services	2.8%

What Change Do You Expect in your Volume of Business from these industries?

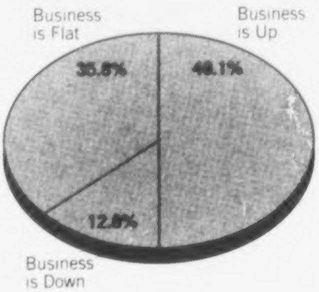
Market	Increase	Business Will Decrease	Remain Steady
Manufacturers–Wholesalers	52.1%	11.9%	32.6%
Retail Trade	49.1%	12.8%	35.8%
Misc. Business Services	45.8%	8.9%	38.8%
Health Care Providers	51.6%	5.7%	40.1%
Social Services–Nonprofits	32.6%	14.0%	49.2%
Food, Lodging, Entertainment	44.6%	9.8%	40.8%
Educational Institutions	34.0%	13.8%	47.9%
Banking/Financial Services	43.9%	14.0%	37.6%
Publishing	43.4%	10.4%	37.7%
Real Estate	30.6%	20.4%	44.6%
Insurance Carriers or Agents	21.6%	15.1%	58.3%
Legal Services	30.2%	7.0%	58.1%

Expected Changes in Leading Industries

Manufacturers–Wholesalers



Retail Trade



Misc. Business Services